Response #8

8. Within our facilities, use of aerosol cans is minimal. Aerosol cans are not used in our processes. All aerosol cans within our premises are exclusively used by and for maintenance. Presently there are no more than 11 aerosol cans at our combined facilities. These consist exclusively of over-the-counter products, most commonly WD-40 brand lubricant, Pine Break lubricant, and pest control products. All aerosol can products within our facilities are maintained and disposed of according to instructions given on respective labels.

a. Aerosol cans are used in our facilities primarily for lubrication. Presently, 11 aerosol cans are found at our Baylis facility: 3 cans WD-40 brand lubricant (for lubrication); 2 cans Chesterton 438-teflon coating (dry film lubricant- unused sample given to maintenance department); 1 can Calfonex Pine Break lubricant (for lubrication); 1 can Spray Pak bee & hornet pesticide (for use to control/eliminate infestations within our facilities); 1 can MinWax clear stain (for personal use by maintenance department- not used within our facility); 1 can SunnyMax slip resistance coating (dry film lubricant- unused sample given to maintenance department); 1 can SunnyMax skin shield (unused sample given to maintenance department); and 1 can Perma Slik solid film lubricant (dry film lubricant).

b. Under representative conditions, 1-2 cans per year are used within our combined facilities, consisting nearly exclusively of lubricant products. Additional aerosol cans (such as pest control) are used less frequently and will not be consumed within 1 year's time.

c. Eastern Plating Company, Inc. does not maintain MSDS data on over-the-counter, consumer-grade aerosols. Use, storage, and disposal of, all aerosol cans within our facility, are followed in accordance with the manufacturers instructions on said cans. As noted above, the full list of aerosol products used and/or stored on our premises are: WD-40, Chesteron 438, Calfonex Pine Break, Spray Pak, MinWax, SunnyMax, and Perma Silk.

d. As noted previously, these products are all consumer-grade, over-the-counter aerosol cans. As such, no waste determination was made regarding these products.

e. Per the above, no waste determination was made, as these products are consumer grade and purchased over-the-counter, and are maintained and stored in accordance with the manufacturers instructions.

f. No aerosol cans used in our facilities qualify as hazardous waste. As stated, all aerosol products within our premises are consumer-grade, over-the-counter products, which are disposed of in accordance with the manufacturers' guidelines.

g. No hazardous waste determination was made for any aerosol cans found/used within our facilities. As noted above, all products within our facilities are consumer-grade, over-the-counter products, and are maintained and disposed of by the guidelines set forth by the manufacturers. No additional determination or analysis was necessary for any of these products, by their nature.

h. As these aerosol cans are all consumer-grade and purchased over-the-counter, no storage, offsite-shipping, and/or special disposal procedures were/are necessary. These products are

maintained and disposed of in accordance with the manufacturers' guidelines.

Response # 9

9. Ten 55-gallon drums were identified by inspectors at the time of their December 2007 visit.

a. The four drums containing chromic acid anodize were generated when a new chromic acid anodize tank was set up. The chromic acid anodize had been utilized in a 286-gallon tank. This solution was pumped into the drums with the remaining amount used as a "seed" for the new tank. Subsequently created a new, 563-gallon tank was set up. The chromic acid anodize contained in the drums is used as a premix and pumped, as needed, into the new tank, to make bath concentration adjustments.

The four drums containing chromic rinse water were generated after emptying the old chromic acid anodize tank. After pumping the solution from the old tank into the drums. The remaining sediment at the bottom was removed and the tank was cleaned using water. The resulting chromic rinse water was pumped into additional 55-gallon drums, which were stored to be shipped off-site by our vendor for appropriate disposal.

The two drums which contain caustic etch used in our waste water treatment system were generated when emptying the caustic etch tank to create a new bath.

b. As noted above, the contents of the (10) 55-gallon drums are as follows:
4 drums contain "in-process" (still usable) chromic acid anodize,
4 drums contain chromic rinse water,
2 drums contain caustic etch

c. With regards to the dates of generations of the drums in question:
4 drums of in-process chromic acid anodize were generated December 6, 2007;
4 chromic rinse water drums, three were generated December 7, 2007,
2 caustic etch drums were generated June 20, 2007

d. Attachment 9a contains the MSDS for chromic acid. 9b contains the MSDS for sodium hydroxide.

e. 4 drums contain in-process chromic acid anodize and are not waste
4 drums contain chromic rinse water were determined to be hazardous waste
2 drums contain caustic etch used in our waste water treatment system

f. 4 drums chromic rinse water determined to be waste on December 7, 2007.

g. 4 drums of chromic rinse water were determined to be hazardous waste.

h. The chromic rinse water was determined to be hazardous waste through prior analysis and recent outside laboratory. Attachment 9c contains the lab report.

i. The four drums of chromic rinse water were shipped off-site on March 14, 2008. Attachment 9d contains the manifest.

Response # 9

j. The four drums of chromic acid rinse water were shipped off-site for disposal.

k. Attachment 9d contains the manifest for the shipment.

ATOTECH ATTACHMENT 9A CHROMIC ACID (FLAKES)

MATERIAL SAFETY DATA SHEET

Print date: 15-Feb-2007 Revision Number: 3

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product code: 1666049-0100-5-000
Product name: CHROMIC ACID (FLAKES)
Synonyms: Chromium Trioxide. Chromic Anhydride.
Chemical characterisation: Metal oxide.

Supplier:

ATOTECH USA INC
1750 OVERVIEW DRIVE
ROCK HILL, SC 29730
TELEPHONE: 803-817-3500
HOURS: 9:00am - 5:00pm EST

ATOTECH CANADA LTD.
1118 CORPORATE DRIVE
BURLINGTON, ONTARIO L7L 5R6
TELEPHONE: 905-332-0111
HOURS: 9:00am - 5:00pm EST

Emergency telephone number

SPILLS AND TRANSPORT	CHEMTREC:	800-424-9300
	CANUTEC:	613-996-6666
TRANSPORT MEDICAL	ROCKY MOUNTAIN POISON CONTROL CENTER: 303-623-5716	

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
DANGER
OXIDIZER
CORROSIVE
TOXIC
CARCINOGEN

This material is considered to be hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
This material is a controlled product under WHMIS.

Potential health & environmental effects

Properties affecting health: The product causes burns of eyes, skin and mucous membranes. Toxic by inhalation. Toxic in contact with skin. Also toxic if swallowed. Possible carcinogen.

Principle routes of exposure: Eyes. Skin. Respiratory system. Gastrointestinal tract.

Skin contact: Corrosive. Causes severe irritation and burns. Toxic in contact with skin. Large exposures may be fatal. May cause systemic poisoning. May cause sensitization by skin contact.

Eye contact: Corrosive to the eyes and may cause severe damage including blindness.

Inhalation: Corrosive. Causes severe irritation and burns. Very toxic by inhalation. Can cause ulceration of mucous membranes. May cause bronchiospasms. May cause sensitization by inhalation.

Ingestion: Corrosive. Causes severe irritation and burns. Toxic if swallowed. May cause systemic poisoning. Liver and kidney injuries may occur.

Physico-chemical properties: Contact with combustible material may cause fire.

Potential environmental effects: Dangerous for the environment

SEILER-HUGHES
138 West Barney St.
Baltimore, MD 21230
(410)727-6770

Product name: CHROMIC ACID (FLAKES)

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS (BY WEIGHT PERCENT)

Components	CAS-No	Weight %
Chromium trioxide (CrO3)	1333-82-0	90 - 100

This product may contain component (s) that are not listed under disclosure. All components not listed, do not contain hazardous materials above deminimus dislosure limits as defined by OSHA, NIOSH ACGIH or Canadian WHMIS regulations and or guidelines. Please refer to other sections of the MSDS for information on safety, health and environmental guidelines and precautions.

4. FIRST AID MEASURES

General advice: Immediate medical attention is required.

Skin contact: Immediate medical attention is required. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove and wash contaminated clothing before re-use.

Inhalation: Immediate medical attention is required. Move to fresh air. Artificial respiration and/or oxygen may be necessary.

Eye contact: Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Ingestion: Immediate medical attention is required. Call a physician or Poison Control Center immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

Notes to physician: Overexposure to this product could lead to kidney failure and death. It has been reported that there is little value from chelating agents; however death has been avoided in several such cases through the use of early renal dialysis. Ascorbic acid by mouth or intravenously has been shown to be effective (converting Chrome VI to Chrome III) in preventing renal tubular failure. Skin ulcers may be treated by removal from exposure, daily cleaning, debridement, and application of antibiotic cream and dressing. Continue to monitor for respiratory distress for 72 hours.

Protection of first-aiders: Wear personal protective equipment.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use dry chemical CO2, water spray or "alcohol" foam.

Extinguishing media which must not be used for safety reasons: DO NOT use combustible materials such as sawdust.

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA / NIOSH (approved or equivalent) and full protective gear. Use personal protective equipment.

Specific hazards: Oxidizing agent. , In the event of fire, the following can be released, chromium oxides, oxygen, Contact with combustible material may cause fire.

Unusual hazards: Containers may explode when involved in fire. Chromic acid reacts strongly with materials which are readily oxidized. May sustain a fire involving easily oxidizable material.

Specific methods: Water mist may be used to cool closed containers. Dike and collect water used to fight fire. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Flash Point: Not flammable.

Product name: CHROMIC ACID (FLAKES)

SEILER-HUGHES
138 West Barney St.
Baltimore, MD 21230
(410)727-6770

Flash point test method:	Not applicable.
Autoignition temperature:	Not applicable.
Flammability Limits in Air:	
- Lower:	Not applicable.
- Upper:	Not applicable.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protection recommended in Section 8. Isolate area and deny entry to unauthorized and/or unprotected personnel.

Environmental precautions: Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Discharge to a public sewerage authority should coincide with all applicable local permits and notification requirements. May be hazardous to aquatic life if released to open waters.

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Spills should be cleaned up immediately to prevent dispersion of airborne mists and dusts. For a spill involving a solid material, clean up promptly by scoop or vacuum. Avoid dust formation. Do not dry sweep. Clean spills using wet clean up methods (i.e., misting, etc.) or with a HEPA vacuum. Dike spilled liquid material with suitable inert absorbent (ex: sand, soil, vermiculite) and place in a clean dry container for later recycle or disposal. Keep in suitable, closed containers for disposal. Run off water may be corrosive and / or toxic. Dispose of in accordance with all local, state / provincial, and federal regulations.

7. HANDLING AND STORAGE

Handling

Technical measures/precautions: Use only in area provided with appropriate exhaust ventilation.

Safe handling advice: Handle in accordance with good industrial hygiene and safety practice. Do not contact with skin, eyes, or clothing. Do not breathe vapors/dust. Do not ingest. Avoid dust formation. Remove and wash contaminated clothing before re-use. Keep away from combustible material.

Storage

Technical measures/storage conditions: Keep tightly closed in a dry, cool and well-ventilated place. Store away from ignition sources, combustible, organic, or other readily oxidizable materials. Protect from moisture.

Incompatible products: Combustible, organic, other readily oxidizable materials. Corrosive in contact with metals. Bases. Cyanides.

Shelf Life (days): 730

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure:
Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Respiratory protection: Use NIOSH approved respiratory equipment when airborne concentrations are equal to or may exceed exposure limits. For emergency or other conditions where exposure levels are not known or may be uncontrolled use a positive pressure air-supplied or self-contained breathing apparatus (SCBA).

Hand protection: Consult glove manufacturer to determine the most suitable chemical resistant glove for user's application. Consideration must be given to durability and permeation resistance.

Product name: CHROMIC ACID (FLAKES)

Skin and body protection: Usual safety precautions while handling the product will provide adequate protection against this potential effect. Impervious clothing. Chemical resistant apron. Boots. Consult glove/clothing manufacturer to determine the most suitable chemical resistant glove/clothing for user's application. Consideration must be given to durability and permeation resistance.

Eye protection: Tightly fitting safety goggles. Face-shield. An emergency eye wash must be readily accessible to the work area.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Components	TWA	STEL	Ceilings	TWA	STEL	Ceilings	TWA	STEL	Ceilings
Chromium trioxide (CrO3) 1333-82-0				5 µg/m³		0.1 mg/m³	0.001 mg/m³		

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Solid	**Color:**	RED BROWN
Odor:	Characteristic	**Specific gravity:**	>1
pH:	<2	**Boiling point:**	Not applicable.
Melting point:	384.8 °F / 196 °C	**Bulk density:**	100 lbs/cf
Evaporation rate:	Not applicable.	**Vapor density:**	Not applicable.
Vapor pressure:	Not applicable.	**VOC content(%):**	Not applicable.
Solubility in water:	Complete	**Solubility in other solvents:**	No information available
Flash Point:	Not flammable.	**Flash point test method:**	Not applicable
Autoignition temperature:	Not applicable.	**Decomposition temperature:**	384.8 °F / 196 °C

Explosion limits:
- **Upper:** Not applicable.
- **Lower:** Not applicable

10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Materials to avoid: Readily oxidizable or combustible material. Metals. Bases. Cyanides.

Conditions to avoid: Incompatible products. Extremes of temperature and direct sunlight. Keep away from open flames, hot surfaces and sources of ignition. Exposure to moisture.

Hazardous decomposition products: Thermal decomposition can lead to the release of irritating gases and vapors which may include (but are not limited to), chromium oxides, oxygen.

Polymerization: None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

Product name: CHROMIC ACID (FLAKES)

Components	LD50/oral/rat	LC50/inhalation/8h/rat	LD50/dermal/rabbit
Chromium trioxide (CrO3) - 1333-82-0	50 mg/kg	0.217 mg/L	20 mg/kg

Product Information

LC50/inhalation/4h/rat = 217 mg/m³
LD50/dermal/rabbit = 57 mg/kg
LD50/oral/rat = 51 mg/kg

Local effects

Skin irritation: Corrosive. Causes burns. Toxic in contact with skin. Chrome VI penetrates undamaged skin and reduces to Chrome III which forms a skin allergen by combining with proteins or other skin components. Chrome sores most commonly occur at breaks in the skin, nailroots, creases over knuckles, finger webs, backs of hands, and on forearms. Direct contact can cause sensitization, severe burns, and external ulcers (chrome sores). Liver and kidney injuries may occur.

Eye irritation: Corrosive to the eyes and may cause severe damage including blindness. Can cause chronic conjunctival inflammation. May cause discoloration of cornea.

Inhalation: Corrosive. Causes severe burns. Inhaled corrosive substances can lead to a toxic edema of the lungs. Can cause ulceration of mucous membranes. May cause bronchiospasms. Repeated or prolonged inhalation may cause ulceration and perforation of the nasal septum

Ingestion: Corrosive. Ingestion causes burns of the upper digestive and respiratory tracts. Toxic if swallowed. Harmful or fatal if swallowed.

Sensitization: May cause sensitization by inhalation and skin contact.

Chronic toxicity: Repeated inhalation of chromic acid causes nasal perforation, skin ulceration, chronic rhinitis, pharyngitis, kidney and liver damage, inflammation of the larynx, changes in the blood and lung cancer. Transfer to the eyes from the fingers or droplets in the air can cause chronic conjunctival inflammation and occasionally a brown band in the cornea. This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Specific effects

Carcinogenic effects: The National Toxicology Program (NTP) has designated Hexavalent Chromium Compounds as Known Human Carcinogens. The International Agency for Research on Cancer (IARC) has identified Hexavalent Chromium Compounds as Carcinogenic to Humans (group 1). The American Conference of Governmental Industrial Hygienists (ACGIH) has identified Water-Soluble Hexavalent Chromium Compounds as Confirmed Carcinogens.

Mutagenic effects: No information available

Reproductive toxicity: No information available

Target organ effects: Eyes. Skin. Kidneys. Respiratory system. Liver.

Carcinogens

Components	NTP:	IARC:	OSHA	ACGIH
Chromium trioxide (CrO3)	Listed	1	Listed	

12. ECOLOGICAL INFORMATION

Environmental Hazards

Ecotoxicity effects: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Toxic to wildlife and domestic animals.

Product name: CHROMIC ACID (FLAKES)

Aquatic toxicity: Hexavalent chromium may remain unchanged or change slowly in many natural waters due to the low concentration of reducing matter
Hexavalent chrome in water will eventually be reduced to trivalent chrome by organic matter
The residence time of chromium in lake water has been estimated to be 4.6 to 18 years

Mobility: This product is soluble in water. Chromium may be transported from soil through runoff and leaching of water and through aerosol formation. The organic matter present in soil is expected to reduce soluble chromate to insoluble chromic oxide.

Bioaccumulative potential: Bioaccumulation from soil to above ground parts of plants is unlikely. There is no indication of biomagnification along the terrestrial food chain (soil-plant-animal).

Components	Freshwater Algae	Freshwater Fish Species
Chromium trioxide (CrO3) - 1333-82-0		96 h LC50 (Pimephales promelas) = 38.2 mg/L 96 h LC50 (Colisa fasciatus) = 40 mg/L 96 h LC50 (Oncorhynchus mykiss) = 7.6 mg/L

Components	Microtoxicity	Water Flea
Chromium trioxide (CrO3) 1333-82-0		24 h EC50 = 435 µg/L

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: Dispose of in accordance with federal, provincial, state, and local regulations.

Contaminated packaging: Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT

Proper shipping name DOT:	CHROMIUM TRIOXIDE, ANHYDROUS
Hazard Class (DOT):	5.1
Subsidiary Class (DOT):	8, 6.1
UN-No (DOT):	UN1463
Packing group (DOT):	II
DOT RQ (kg):	4.55
Description (DOT):	CHROMIUM TRIOXIDE, ANHYDROUS, 5.1(8, 6.1), UN1463, PGII, RQ

TDG (Canada)

Proper shipping name TDG:	CHROMIUM TRIOXIDE, ANHYDROUS
Hazard Class (TDG):	5.1
Subsidiary Class (TDG):	8
UN-No (TDG):	UN1463
Packing group (TDG):	II
Description (TDG):	CHROMIUM TRIOXIDE, ANHYDROUS, 5.1(8), UN1463, PGII

IMO / IMDG

Proper shipping name (IMDG):	CHROMIUM TRIOXIDE, ANHYDROUS
Hazard Class (IMO/IMDG):	5.1

Product name: CHROMIC ACID (FLAKES)

14. TRANSPORT INFORMATION

Subsidiary Class (IMO/IMDG): 8
UN-No (IMO/IMDG): UN1463
Packing group (IMO/IMDG): II
Description (IMO/IMDG): CHROMIUM TRIOXIDE, ANHYDROUS, 5.1(8), UN1463, PGII

IATA

Proper shipping name (IATA): CHROMIUM TRIOXIDE, ANHYDROUS
Hazard Class (IATA): 5.1
Subsidiary Class (IATA): 8
UN-No (IATA):: UN1463
Packing group (IATA): II
Description (IATA): CHROMIUM TRIOXIDE, ANHYDROUS, 5.1(8), UN1463, PGII

15. REGULATORY INFORMATION

International Inventories

All of the components in this product are on or exempt from the following inventories:
U.S.A. (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), Korea (ECL), China (IECSC), Japan (ENCS), Philippines (PICCS).

International Inventory Legend
TSCA: Toxic Substance Control Act
DSL: Domestic Substance List
NDSL: Non-Domestic Substance List
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: EU List of Notified Chemical Substances
ECL: Existing Chemicals List aka Existing and Evaluated Chemical Substances
AICS: Inventory of Chemical Substances
ENCS: Existing and New Chemical Substances
PICCS: Phillipines Inventory of Chemicals and Chemical Substances

U.S. Regulations:

HAZARDOUS COMPONENTS

Components	CA PROP 65	SARA 302	SARA 313	CERCLA RQ	TSCA 12(b)	CWC	DEA
Chromium trioxide (CrO3)	X		X		X		

U.S. Regulations Legend
CA PROP 65: California Proposition 65 - Carcinogens List
TSCA 12(b): TSCA Section 12(b) - Export Notification
SARA 302: CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs and TPQs
SARA 313: CERCLA/SARA - Section 313 - Emission Reporting
CERCLA RQ: CERCLA/SARA - Hazardous Substances and Their Reportable Quantities
CWC: Chemical Weapons Convention - Annex on Chemicals
DEA LISTED: DEA (Drug Enforcement Administration) - DEA Controlled, Precursors, and / or Essential Chemicals

SARA 311	
Acute Health Hazard	YES
Chronic Health Hazard	YES
Fire Hazard	YES
Sudden Release of Pressure Hazard	NO
Reactive Hazard	NO

Canada
This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

WHMIS Controlled List

Product name: CHROMIC ACID (FLAKES)

HAZARDOUS COMPONENTS

Components	CAS-No	WHMIS Call out threshold
Chromium trioxide (CrO3)	1333-82-0	0.1 %

WHMIS hazard class:
- C Oxidizing materials
- E Corrosive material
- D1B Toxic materials
- D2A Very toxic materials

16. OTHER INFORMATION

NFPA: Health: 3 Flammability: 0 Instability: 1 Other data: Oxy

CAREFULLY READ THE FOLLOWING: The identification of ingredients in this document meets or exceeds the requirements set forth in 29 CFR, 40 CFR, TDG et al. at the date of publication. Ingredients present in a mixture or solution which are generically identified or not referenced in this document are not regulatorily required to be specifically identified or referenced. The information contained herein should be provided to all those who will use, handle, store, transport, or may otherwise be exposed to this product.

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Prepared by: H.E.S. Department

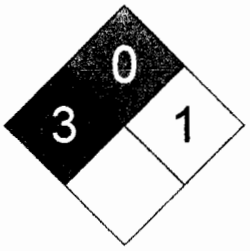
MATERIAL SAFETY DATA SHEET ATTACHMENT 9B

1. Product and Company Identification

Product Name	**Sodium Hydroxide 50%**
CAS #	1310-73-2
Product Use	Industrial applications
Manufacturer	Benson Chemicals Ltd. RR #1 Freelton ON L0R 1K0 CA Telephone: 1-800-265-0014
CANUTEC	613-996-6666

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/	3
Flammability		0
Physical Hazard		1
Personal Protection		X



2. Hazards Identification

Emergency Overview	*DANGER* Causes skin and eye burns. May be fatal if swallowed or inhaled.
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Eyes	Causes chemical burns. May cause blindness.
Skin	Causes chemical burns.
Inhalation	May cause respiratory tract irritation.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Target organs	*Eyes. Respiratory system. Skin.*
Chronic effects	Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.
Signs and symptoms	The product causes burns of eyes, skin and mucous membranes.

3. Composition/Information on Ingredients

Ingredient(s)	CAS #	Percent
Sodium hydroxide	1310-73-2	30 - 60

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.
Skin contact	Immediately flush with cool water for 15 minutes while removing contaminated clothing and shoes. Discard or wash well before reuse. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical *attention.*
Ingestion	Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.
General advice	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting Measures

Flammable properties	*Not flammable by WHMIS criteria.*
Extinguishing media	
Suitable extinguishing media	Treat for surrounding material.

Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighers	Firefighters should wear full protective clothing including self contained breathing apparatus.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use. Should not be released into the environment.

7. Handling and Storage

Handling	*Use good industrial hygiene practices in handling this material. Do not get this material in* your eyes, on your skin, or on your clothing.
Storage	Keep out of the reach of children.Store in a closed container away from incompatible materials. Keep in a dry, cool and well-ventilated place.

8. Exposure Controls / Personal Protection

Exposure limits

Ingredient(s)	**Exposure limits**
Sodium hydroxide	**ACGIH-TLV** Ceiling: 2 mg/m3

Engineering controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Personal protective equipment	
Eye/Face protection	Chemical splash goggles.
Hand protection	Impervious gloves. Confirm with reputable supplier first.
Skin and body protection	Use of an impervious apron is recommended.
Respiratory protection	*If airborne concentrations are above the applicable exposure limits, use NIOSH approved* respiratory protection.
General hygiene considerations	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical & Chemical Properties

Appearance	Clear to slightly turbid
Colour	Colourless
Form	Liquid.
Odour	Odourless
Odour threshold	Not available
Physical state	Liquid
pH	14 (5% Aqueous solution)
Freezing point	12 °C (53.6 °F)
Boiling point	140 °C (284.0 °F)
Flash point	Not applicable
Evaporation Rate	Not available
Flammability limits in air, lower, % by volume	Not applicable
Flammability Limits in Air, Upper, % by Volume	Not applicable
Vapour pressure	0.2 kPa (1.5 mmHg) @20°C
Vapour density	Not applicable

Specific gravity	1.53 (H2O = 1)
Octanol/water coefficient	Not available
Solubility (H2O)	Complete
Auto-ignition temperature	Not applicable
Viscosity	78.3 cp @20°C
Bulk density	95.5 lb/cu ft

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizing agents.
Hazardous decomposition products	Irritating and/or toxic fumes and gases may be emitted upon the products decomposition.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	**LC50**
Sodium hydroxide	Not available

Component analysis - Oral LD50

Ingredient(s)	**LD50**
Sodium hydroxide	Not available

Effects of acute exposure	
Eye	Causes chemical burns. May cause blindness.
Skin	Causes chemical burns.
Inhalation	May cause respiratory tract irritation.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Sensitisation	Non-hazardous by WHMIS criteria.
Local effects	Toxic if swallowed.
Chronic effects	Non-hazardous by WHMIS criteria.
Carcinogenicity	Non-hazardous by WHMIS criteria.
Mutagenicity	Non-hazardous by WHMIS criteria.
Reproductive effects	Non-hazardous by WHMIS criteria.
Teratogenicity	Non-hazardous by WHMIS criteria.

12. Ecological Information

Ecotoxicity effects	Components of this product have been identified as having potential environmental concerns.
Environmental effects	*Harmful to aquatic life.*
Aquatic toxicity	Not available
Persistence and degradability	Not available
Bioaccumulation/accumulation	Not available
Partition coefficient	Not available
Mobility in environmental media	Not available
Chemical fate information	Not available

13. Disposal Considerations

Waste codes	Not available
Disposal instructions	Review federal, provincial, and local government requirements prior to disposal.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

Transportation of Dangerous Goods (TDG)

Basic shipping requirements:

Proper shipping name	Sodium hydroxide solution
Hazard class	8
UN number	1824
Packaging group	II

15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS classification Class E - Corrosive Material

WHMIS status Controlled

WHMIS labeling

Inventory Status

Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

16. Other Information

Disclaimer Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date 29-Nov-2005

Effective Date 15-Nov-2005

Expiry Date 15-Nov-2008

Prepared by Dell Tech Laboratories Ltd. (519) 858-5021

ATTACHMENT 9C

ENVIRO-CHEM LABORATORIES, INC.

100 Lakefront Drive, Hunt Valley, Maryland 21030 (410) 785-9739

FINAL REPORT OF ANALYSES

Eastern Plating Company
1200 South Baylis Street
Baltimore, MD 21224-

PROJECT NAME:
REPORT DATE: 26-Feb-08

LAB#- ECL015295-001 SAMPLE ID- Tank 8 Chrome Rinse
LOCATION-
DATE SAMPLED- 2/15/2008 TIME SAMPLED- SAMPLER- A. Amasia
DATE RECEIVED- 2/19/2008 TIME RECEIVED- 14:15
DELIVERED BY- A. Amasia RECEIVED BY- SES

ANALYSIS	METHOD	ANALYSIS DATE/TIME	BY	RESULT		DETECTION LIMIT
Arsenic	EPA 200.7	2/25/2008 11:07	CHK	< 0.030	mg/L	0.030
Barium	EPA 200.7	2/25/2008 11:07	CHK	1.111	mg/L	0.020
Cadmium	EPA 200.7	2/25/2008 11:07	CHK	< 0.005	mg/L	0.005
Chromium	EPA 200.7	2/26/2008 11:10	CHK	8.780	mg/L	0.050
Lead	EPA 200.7	2/25/2008 11:07	CHK	< 0.05	mg/L	0.05
Mercury	EPA 245.1	2/25/2008 14:47	CHK	< 0.001	mg/L	0.001
Selenium	EPA 200.7	2/25/2008 11:07	CHK	< 0.050	mg/L	0.050
Silver	EPA 200.7	2/25/2008 11:07	CHK	< 0.010	mg/L	0.010

ATTACHMENT 9D

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
MDD063215453	1		001585039 FLE

GENERATOR

5. Generator's Name and Mailing Address
Eastern Plating Co.
1200 South Baylis Street, Baltimore, MD 21224
Generator's Phone: 410-342-4107

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Envirite of Pennsylvania, Inc — U.S. EPA ID Number: PAD010154045

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Envirite of Pennsylvania, Inc
730 Vogelsong Road, York, PA 17404
Facility's Phone: 717-846-1900

U.S. EPA ID Number: PAD010154045

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, Waste chromic acid solution, 8, UN1755, III (D002, D005, D007, D008)	4	DM	220	G	D002	D005	
						D007	D008	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
ERG# 154
Y#3245
V.C. # 018583

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Wellington Nishiashi		03	14	08

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year
Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name	Signature	Month	Day	Year

ENVIRITE OF PENNSYLVANIA, INC.
Technology For The Environment

BILL OF LADING

CARRIER

Envirite of Pennsylvania, Inc.
730 Vogelsong Road
York, PA 17404
(717) 846-1900
(717) 854-6757 Fax

Central Dispatch Number
(800) 501-5659

EPA ID: PAD010154045

ICC: MC 311577

Bol No.: Nº 56820 Y
Load No.:
Stream No.: 4 3245
Date: 03-14-05

TO CONSIGNEE	FROM SHIPPER
STREET	STREET
DESTINATION	ORIGIN STATE ZIP

No Shipping Units	HM	Kind of Packages, Description of Articles (IF HAZARDOUS MATERIALS - PROPER SHIPPING NAME)	HAZARD CLASS	I.D. Number	PACKING GROUP	WEIGHT (subject to correction)
1 1 DF	X	RQ Waste Chromic acid solution	8	UN 1755	III	2206
2.						
3.						

IF PRODUCT TEMPERATURE IS OVER 110°F, CALL DISPATCH

DRIVER: Glass

TRUCK #: 401 26

TRAILER #: 3707

BOX # SPOTTED: X

BOX # REMOVED:

Miles | Pump Used Y (N) | Liner Used Y (N)

Finish	P/U Date 03-14-05	Del. Date 03-14-05	Gross Wt.
Start	P/U Time	Del. Time	Tare Wt.
TOTAL	In Out	In Out	Net Wt.

Special Instruction & Explain Delay at Shippers	Special Instruction & Explain Delay at Consignee

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.
I have inspected the trailer and certify it acceptable for loading and verify that the times and explanation listed above are correct.

I have inspected the trailer and certify it completely empty and verify that the times and explanation listed above are correct.

Shipper Signature X	Consignee Signature X
Loading Date 03-14-05	Unloading Date 03-14-05
Driver Signature X	Driver Signature X

CARRIER - **ENVIRITE OF PENNSYLVANIA, INC.** - YORK, PA 17404

CARRIER - **ENVIRITE OF PENNSYLVANIA, INC.** - YORK, PA 17404

WHITE - Consignee CANARY - Corporate PINK - Transporter GOLDENROD - Shipper

Response # 10

10. During the EPA inspection, three methyl ethyl ketone (MEK) parts cleaners, of which only two appeared to be in use, were observed.

a. Two statements containing "waste" are inaccurate

- "Waste" implies no longer usable. The lacquer saturated MEK is still usable when it is segregated for recycling.
- The determination to segregate the MEK is based on the operator's judgement. We do not use analytical lab tests to make this determination. Therefore we have no documentation for this.

b. There is no "spent" or "waste" MEK generated at the Baylis facility, only lacquer saturated MEK. Approximately 5 – 10 gallons per month.

c. The drum with the hand pump contained virgin MEK that was either purchased or reclaimed.

The drum with the funnel contained lacquer saturated MEK and was generated as follows:
Many customers' parts require selective anodizing where not all of the surfaces require anodize. A lacquer, Miccroshield, is applied to mask these surfaces. The lacquer dries on the parts prior to anodize. After anodizing the parts are immersed in a series of parts cleaning tanks containing MEK. The first tank contains "dirty" MEK which has dissolved Miccroshield. The parts are moved to successively "cleaner" MEK tanks with the final MEK tank containing no Miccroshield.
The immersion of the parts results in gradual increase in Miccroshield concentration, decreasing the effectiveness of the MEK. At the point in which Miccroshield removal can no longer be achieved in a reasonable amount of time, the MEK is considered "dirty". It is then pumped into these 55-gallon drums for storage, for reuse.

d. The drum with the hand pump contained virgin MEK
The drum with the funnel contained lacquer saturated MEK

The contents were verified by internal evaluation

e. Attachment 10a contains the MSDS for MEK
Attachment 10b contains the MSDS for the miccroshield

f. No waste determination was made on these drums. The contents were in process of being used.

g. As noted, there was no waste determination made on these drums.

h. The contents were not hazardous waste

i. The contents were not hazardous waste, they were in process

Response # 10

j. The contents were not shipped off site.

k. The contents were not shipped off site.

l. The contents were not shipped off site.

ATTACHMENT 10A

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED JUL 1, 2005
MSDS NO : 92050000

METHYL ETHYL KETONE

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME Methyl Ethyl Ketone

CHEMICAL NAME:

CHEMICAL FAMILY:

PRODUCT DESCRIPTION:

CONTACT ADDRESS:

** EMERGENCY TELEPHONE NUMBERS. (24 Hours) **
** CHEMTREC (800) 424-9300 **
** ExxonMobil Chemical Company (800) 726-2015 **

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

SECTION 3 HAZARDS IDENTIFICATION

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED: JUL 1 2005
MSDS NO.: 92050000

METHYL ETHYL KETONE

POTENTIAL HEALTH EFFECTS

EYE CONTACT:

SKIN CONTACT:

INHALATION:

INGESTION:

CHRONIC EFFECTS:

SECTION 4 FIRST AID MEASURES

EYE CONTACT:

SKIN CONTACT:

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED: JUL 1, 2005
MSDS NO.: 92050000

METHYL ETHYL KETONE

Remove contaminated [illegible] clothing shoes, after flushing [illegible]

INHALATION:

[illegible] proper respiratory [illegible] immediately remove the [illegible] [illegible] artificial respiration [illegible] [illegible] prompt medical attention.

INGESTION:

[illegible] Get prompt medical attention.

SECTION 5 FIRE-FIGHTING MEASURES

FLASH POINT	25 Deg F METHOD: TCC ASTM D56 NOTE: TOC [illegible]
FLAMMABLE LIMITS:	LEL: 1.8 UEL: 11.5 @ 77 Deg F.
AUTOIGNITION TEMP.:	960 Deg F

GENERAL HAZARD

[illegible] vapors that form flammable mixtures [illegible] above the flashpoint.
"Empty" containers retain product residue (liquid and/or vapor) [illegible] dangerous. DO NOT pressurize, cut, weld, braze, solder, [illegible] heat, flame, sparks, static electricity [illegible] of ignition. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. [illegible] should be [illegible], properly [illegible] and [illegible] [illegible] properly disposed of.

FIRE FIGHTING

Use water spray to cool fire exposed surfaces and to protect personnel. Shut off "fuel" to fire. If a leak or spill has not ignited, use water spray to disperse the vapors.
Either allow fire to burn under controlled conditions or extinguish with alcohol type foam and dry chemical. Try to cover liquid spills with foam.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS

[illegible]

SECTION 6 ACCIDENTAL RELEASE MEASURES

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED: JUL 1, 2005
MSDS NO. 92050000

METHYL ETHYL KETONE

LAND SPILL

[illegible]

WATER SPILL

[illegible]

SECTION 7 STORAGE AND HANDLING

ELECTROSTATIC ACCUMULATION HAZARD

[illegible]

STORAGE TEMPERATURE Deg F

[illegible]

LOADING/UNLOADING TEMPERATURE Deg F

[illegible]

STORAGE/TRANSPORT PRESSURE kPa g

Atmospheric

LOADING/UNLOADING VISCOSITY cSt

[illegible]

STORAGE AND HANDLING

[illegible]

Page

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED: JUL 1, 2005
MSDS NO.: 9205000

METHYL ETHYL KETONE

Do NOT pressurize, cut, heat, or weld containers. Empty product
[illegible]

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE CONTROLS

[illegible]

PERSONAL PROTECTION

[illegible]
Where contact may occur, wear a face shield.
Where concentrations in air may exceed the limits given in Section
[illegible]
[illegible]

WORKPLACE EXPOSURE GUIDELINES

[illegible]
For Methyl Ethyl Ketone (2-Butanone):
The recommended permissible exposure levels incorporated above but not the
levels promulgated by OSHA in 1989 or in subsequent regulatory activity
Although the 1989 levels have since been vacated by the 11th Circuit Court
of Appeals, ExxonMobil Chemical Company recommends that the lower exposure
levels be observed as reasonable worker protection.
The ACGIH RECOMMENDS THE FOLLOWING THRESHOLD LIMIT VALUES:
A TWA of 200 ppm (590 mg/m3) and a STEL of 300 ppm (885 mg/m3) for
Methyl Ethyl Ketone.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

SPECIFIC GRAVITY at Deg F:	0.81 at 68
VAPOR PRESSURE, mmHg at Deg F:	82.508 at 75
	172.517 at 100

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED: JUL 1, 2005
MSDS NO: 92050000

METHYL ETHYL KETONE

SOLUBILITY IN WATER, wt. % at Deg F:	26.30 at 68
VISCOSITY OF LIQUID, cSt at Deg F:	0.5 at 68
SP. GRAV. OF VAPOR, at 1 atm (Air=1):	Greater than 1.00
FREEZING/MELTING POINT, Deg F:	Less Than 32
EVAPORATION RATE, n-Bu Acetate=1:	6.0
BOILING POINT, Deg F:	175 to 177

SECTION 10 STABILITY AND REACTIVITY

STABILITY:

CONDITIONS TO AVOID INSTABILITY:

HAZARDOUS POLYMERIZATION:

CONDITIONS TO AVOID HAZARDOUS POLYMERIZATION

MATERIALS AND CONDITIONS TO AVOID INCOMPATIBILITY:

HAZARDOUS DECOMPOSITION PRODUCTS:

SECTION 11 TOXICOLOGICAL INFORMATION

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED JUL 1 2005
MSDS NO.: 92050000

METHYL ETHYL KETONE

SECTION 12 ECOLOGICAL INFORMATION

SECTION 13 DISPOSAL CONSIDERATIONS

SECTION 14 TRANSPORT INFORMATION

DEPARTMENT OF TRANSPORTATION (DOT):

SECTION 15 REGULATORY INFORMATION

TSCA:

CERCLA

SARA TITLE III:

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED JUL 1, 2005
MSDS NO.: 92050000

METHYL ETHYL KETONE

This information may be subject to the provisions of the Community Right To Know Reporting Requirements (40 CFR 370) if threshold quantities [illegible]
[illegible] contain Section 313 Reportable Ingredients

SECTION 16 OTHER INFORMATION

HAZARD RATING SYSTEMS

This information is for people trained in:
National Paint & Coatings Association's (NPCA) Hazardous Materials Identification System (HMIS)
National Fire Protection Association (NFPA 704) Identification of the Fire Hazards of Materials

	NPCA-HMIS	NFPA 704	KEY
HEALTH	2	1	4 = Severe
FLAMMABILITY	3	3	3 = Serious
REACTIVITY	0	0	2 = Moderate
			1 = Slight
			0 = Minimal

CAUTION: HMIS ratings are based on a 0-4 rating scale with [illegible] hazards or risks, and 4 representing significant hazards or risks. Recommended HMIS ratings should not be used in the absence of a fully implemented HMIS hazard communication program.

REVISION SUMMARY:

Since April 1, 2000 this MSDS has been revised in Section(s): [illegible]

REFERENCE NUMBER: HDHA-C-00025

SUPERSEDES ISSUE DATE: April 1, 2000

[illegible]
This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. [illegible] responsibility to satisfy himself as to the suitability and [illegible]

[illegible]

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED: JUL 1, 2005
MSDS NO.: 92050000

METHYL ETHYL KETONE

[illegible]

ATTACHMENT 10B

MATERIAL SAFETY DATA SHEET – 16 Sections

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier MIccroshield			**[WHMIS Classification]**
Product Use Plating			
Manufacturer's Name Tolber Chemical Division		**Supplier's Name** Tolber Chemical Division	
Street Address 220 West 5th Street		**Street Address** 220 West 5th Street	
City Hope	**Province** Arkansas	**City** Hope	**Province** Arkansas
Postal Code 71801	**Emergency Telephone** 800-424-9300	**Postal Code** 71801	**Emergency Telephone** 800-424-9300
Date MSDS Prepared 08/09/07	**MSDS Prepared by** Linda Rogers	**Phone Number** 870-777-3251	

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients *(specific)*	%	CAS Number	LD_{50} of Ingredient *(specify species and route)*	LC_{50} of Ingredient *(specify species)*
Toluene	40-50	108-88-3		
Methyl Ethyl Ketone	5-15	78-93-3	4050mg/kg oral mouse	40mg/m3/2hr inhalation mouse
Tetrahydrofuran	15-25	109-99-9	4500mg/kg oral rat	18000 ppm/m3/4hr inhalation rat
Propylene Oxide	0.5-1.5	75-56-9	380 mg/kg oral rat	4000 ppm/m3/4hr inhalation rat

SECTION 3 – HAZARDS IDENTIFICATION

Route of Entry
X Skin Contact X Skin Absorption X Eye Contact X Inhalation X Ingestion

[Emergency Overview] **Dizziness, Nausea, Shortness of Breath.**

[WHMIS Symbols] **Health.....3 Fire Hazard.....3 Reactivity.....0 Personal Protection.....X**
NFPA Health.....3 Fire Hazard.....3 Reactivity.....0 Personal Protection.....X

[Potential Health Effects]
Skin Contact- Irritation, Defatting, Dermatitus Possible. Eye Contact-Vapors may irritate eye, liquid and mist may severely irritate or damage the eye.

Inhalation- Dizziness, Nausea, Headache, Fatigue & Weakness

Ingestion- Irritation, Nausea, Vomiting.

SECTION 4 – FIRST AID MEASURES

Skin Contact-Flush with plenty of water.

Eye Contact-Flush with water. Get medical aid immediately.

Ingestion- Do not induce vomiting-Consult a physician immediately

Inhalation-remove to fresh air.

Product Identifier
Miccroshield

SECTION 5 – FIRE FIGHTING MEASURES

Flammability	X Yes ❑ No	If yes, under which conditions? Exposure to flame, sparks, high heat.
Means of Extinction CO2 Dry Chemical		
Flashpoint (°C) and Method -1.1C; 30F TCC	Upper Flammable Limit *(% by volume)* 10%	Lower Flammable Limit *(% by volume)* 2%
Autoignition Temperature (°C) 65 C	Explosion Data – Sensitivity to Impact	Explosion Data – Sensitivity to Static Discharge
Hazardous Combustion Products Carbon Monoxide		
[NFPA]		

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Leak and Spill Procedures
Remove ignition sources, soak up with absorbent material.
Dispose of in accordance with EPA, State, and Local Regulations.

SECTION 7 – HANDLING AND STORAGE

Handling Procedures and Equipment
Respiratory Protection-Use a Niosh approved respirator. Ventilation-Local Exhaust, Mechanical.
Protective Clothing-Long Sleeve Shirt, Trousers, Safety Shoes, &Solvent Resistant Gloves. Eye Protection-Splash Goggles.
Storage Requirements Flammable- Store in cool, dry area. Keep containers tightly closed. Wash hand with soap and water before handling food.

SECTION 8 – EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Limits	❑ ACGIH TLV 150ppm	❑ OSHA PEL 150ppm	❑ Other (specify) ND
Specific Engineering Controls *(such as ventilation, enclosed process)*			
See section 7			

Personal Protective Equipment	X Gloves	X Respirator	X Eye	X Footwear	X Clothing	❑ Other
If checked, specify type						

Product Identifier

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Odour and Appearance	Odour Threshold (ppm)
Liquid	Ketone	
Specific Gravity	**Vapour Density (air = 1)**	**Vapour Pressure (mmHg)**
0.95	2.9 (Air=1)	ND
Evaporation Rate	**Boiling Point (°C)**	**Freezing Point (°C)**
3.5 (Butyl Acetate=1)	@760 mm Hg 194F	ND
pH	**Coefficient of Water/Oil Distribution**	**[Solubility in Water)**
ND	ND	Not Soluble

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability	If no, under which conditions?
X Yes ☐ No	
Incompatibility with Other Substances	**If yes, which ones?**
X Yes ☐ No	Strong Oxidizing Agents
Reactivity, and under what conditions?	
Strong oxidizing Agents.	
Avoid contact-do not store near flame,sparks,or high heat sources.	
Hazardous Decomposition Products	
Thermal Decomposition May Liberate Carbon Monoxide and Carbon Dioxide.	

SECTION 11 – TOXICOLOGICAL INFORMATION

Effects of Acute Exposure	
See Section -3	
Effects of Chronic Exposure	
Dizziness, Nausea, Shortness of Breath.	
Irritancy of Product	
Skin Sensitization irritation,defatting, dermatitis possible	**Respiratory Sensitization** May cause dizziness-extended exposure
Carcinogenicity - IARC	**Carcinogenicity – ACGIH**
Reproductive Toxicity ND	**Teratogenicity ND**
Embryotoxicity ND	**Mutagenicity ND**
Name of Synergistic Products/Effects ND	

SECTION 12 – ECOLOGICAL INFORMATION

[Aquatic Toxicity] ND

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40CFR. Additionally, waste generators must consult
State and local hazardous waste regulation to ensure complete and accurate classification.
RCRA P-Series None Listed
RCRA U-Series CAS# 78-93-3: waste number U159 ;(-ignitable waste, toxic waste).

SECTION 14 – TRANSPORT INFORMATION

Special Shipping Information Flammable Liquid	
	PIN
TDG	**[DOT] Classification- UN1263 Paint Class 3 PG II** Flammable Liquid
[IMO] UN 1263 Paint Class 3 PG II Flammable Liquid	**[ICAO] Classification- UN1263 Paint Class 3 PG II**

SECTION 15 – REGULATORY INFORMATION

[WHMIS CLASSIFICATION]	**[OSHA]**
[SERA]	**[TSCA]**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

SECTION 16 – *OTHER INFORMATION*

Due to changing nature of regulatory requirements, the information in this document should NOT be considered all Inclusive or authoritative. Users Should make their own investigation to determine the suitability of the information
For their particular purposes. International, Federal, States, and Local regulations should be consulted to determine compliance with all required reporting requirements.
The information in this MSDS was obtained from sources, which we believe are reliable HOWEVER, THE INFORMATION IS PROVIDED WIHTOUT ANY WARRANTY, EXPRESS OR IMPLIED REGARDING IT CORRECTNESS. The conditions or methods of handling, storage use and disposal of the product are beyond our control and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME REPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS,DAMAGE OR EXPRENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HADLING, STORAGE,USE OR DISPOSAL OF THE PRODUCT. This MSDS was prepared and is to be used only for this product. If this product is used as a component in another product, this MSDS information may not be applicable.

Response # 11

11. The inspectors observed gloves on a table near the parts cleaners...that are used to place and remove parts from the MEK parts cleaners.

Note: The two types of gloves are used by the operators-

- Orange heavy-duty latex gloves
- Disposable latex gloves

The orange heavy-duty gloves are non-disposable, are reused and have not been disposed. The latex gloves are disposable. The response below are for the disposable latex gloves and not the orange heavy-duty latex gloves.

a. We purchase approximately 5,000 disposable latex gloves annually for use with MEK and Miccroshield for the Baylis facility.

b. Attachments 11a and 11b contain MSDS for MEK and Miccroshield.

c. The disposed latex gloves were determined to be non-hazardous.

d. The non-hazardous waste determination was made many years ago.

e. The latex gloves have been determined to be non-hazardous.

f. The non-hazardous waste determination was first made based on process knowledge. The MEK evaporates from the glove leaving non-hazardous levels. The Miccroshield without the MEK is non-hazardous.
Analytical test on a representative sample was made by an outside lab. The reports in attachments 11c and 11d shows the gloves to be non-hazardous.

g. There is no manifest for the gloves.

ATTACHMENT 11A

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED JUL 1, 2005
MSDS NO 92050000

METHYL ETHYL KETONE

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME Methyl Ethyl Ketone

CHEMICAL NAME:

CHEMICAL FAMILY:

PRODUCT DESCRIPTION:

CONTACT ADDRESS

** EMERGENCY TELEPHONE NUMBERS. (24 Hours) **
** CHEMTREC (800) 424-9300 **
** ExxonMobil Chemical Company (800) 726-2015 **

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

SECTION 3 HAZARDS IDENTIFICATION

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED: JUL 1, 2005
MSDS NO.: 92050000

METHYL ETHYL KETONE

POTENTIAL HEALTH EFFECTS

EYE CONTACT:

SKIN CONTACT:

INHALATION:

INGESTION:

CHRONIC EFFECTS:

SECTION 4 FIRST AID MEASURES

EYE CONTACT:

SKIN CONTACT:

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED: JUL 1, 2005
MSDS NO.: 92050000

METHYL ETHYL KETONE

INHALATION:

INGESTION:

SECTION 5 FIRE-FIGHTING MEASURES

FLASH POINT	25 Deg F METHOD: TCC ASTM D56 NOTE: TCC @ 2.0 (MCC)
FLAMMABLE LIMITS:	LEL: 1.8 UEL: 11.5 @ 77 Deg F.
AUTOIGNITION TEMP.:	960 Deg F

GENERAL HAZARD

FIRE FIGHTING

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS

SECTION 6 ACCIDENTAL RELEASE MEASURES

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED: JUL 1, 2005
MSDS NO. 92060000

METHYL ETHYL KETONE

LAND SPILL

WATER SPILL

SECTION 7 STORAGE AND HANDLING

ELECTROSTATIC ACCUMULATION HAZARD

STORAGE TEMPERATURE Deg F

LOADING/UNLOADING TEMPERATURE Deg F

STORAGE/TRANSPORT PRESSURE kPa g

LOADING/UNLOADING VISCOSITY cS

STORAGE AND HANDLING

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED: JUL 1, 2005
MSDS NO.: 9205000[illegible]

METHYL ETHYL KETONE

DO NOT pressurize, cut, heat, or weld containers. Empty product
[illegible]

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE CONTROLS

[illegible]

PERSONAL PROTECTION

[illegible]

WORKPLACE EXPOSURE GUIDELINES

[illegible]

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

SPECIFIC GRAVITY at Deg F:	0.81 at 68
VAPOR PRESSURE, mmHg at Deg F:	62.508 at 75
	172.517 at 100

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED: JUL 1, 2005
MSDS NO: 92050000

METHYL ETHYL KETONE

SOLUBILITY IN WATER, wt. % at Deg F:	26.30 at 68
VISCOSITY OF LIQUID, cSt at Deg F:	0.5 at 68
SP. GRAV. OF VAPOR, at 1 atm (Air=1):	Greater Than 1.00
FREEZING/MELTING POINT, Deg F:	Less Than 32
EVAPORATION RATE, n-Bu Acetate=1:	6.0
BOILING POINT, Deg F:	175 to 177

SECTION 10 STABILITY AND REACTIVITY

STABILITY:
Stable

CONDITIONS TO AVOID INSTABILITY:
Not Applicable

HAZARDOUS POLYMERIZATION:
Will not occur

CONDITIONS TO AVOID HAZARDOUS POLYMERIZATION:
Not Applicable

MATERIALS AND CONDITIONS TO AVOID INCOMPATIBILITY:
Caustics, amines, alkanolamines, aldehydes, ammonia, strong oxidizing agents and chlorinated compounds.

HAZARDOUS DECOMPOSITION PRODUCTS:
None

SECTION 11 TOXICOLOGICAL INFORMATION

Please refer to Sect. 3 for available information on potential health effects.

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED JUL 1 2005
MSDS NO : 92050000

METHYL ETHYL KETONE

SECTION 12 ECOLOGICAL INFORMATION

[illegible]

SECTION 13 DISPOSAL CONSIDERATIONS

[illegible]

SECTION 14 TRANSPORT INFORMATION

DEPARTMENT OF TRANSPORTATION (DOT):

[illegible]

SECTION 15 REGULATORY INFORMATION

TSCA:

[illegible]

CERCLA

[illegible]

SARA TITLE III:

[illegible]

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED JUL 1, 2005
MSDS NO. 92050000

METHYL ETHYL KETONE

[illegible]

SECTION 16 OTHER INFORMATION

HAZARD RATING SYSTEMS

[illegible]

	NPCA-HMIS	NFPA 704
HEALTH	2	1
FLAMMABILITY	3	3
REACTIVITY	0	0

4 = Severe
3 = Serious
2 = Moderate
1 = Slight
0 = Minimal

[illegible]

REVISION SUMMARY:

[illegible]

REFERENCE NUMBER:
HDHA-C-00025

SUPERSEDES ISSUE DATE:
April 1, 2000

[illegible]

MATERIAL SAFETY DATA SHEET

ExxonMobil Chemical Company
A Division of Exxon Mobil Corporation

DATE PREPARED: JUL 1, 2005
MSDS NO.: 92050000

METHYL ETHYL KETONE

[illegible]

ATTACHMENT 11B

MATERIAL SAFETY DATA SHEET – 16 Sections

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier MIccroshield			**[WHMIS Classification]**
Product Use Plating			
Manufacturer's Name Tolber Chemical Division		**Supplier's Name** Tolber Chemical Division	
Street Address 220 West 5th Street		**Street Address** 220 West 5th Street	
City Hope	**Province** Arkansas	**City** Hope	**Province** Arkansas
Postal Code 71801	**Emergency Telephone** 800-424-9300	**Postal Code** 71801	**Emergency Telephone** 800-424-9300
Date MSDS Prepared 08/09/07	**MSDS Prepared by** *Linda Rogers*	**Phone Number** 870-777-3251	

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients *(specific)*	%	CAS Number	LD_{50} of Ingredient *(specify species and route)*	LC_{50} of Ingredient *(specify species)*
Toluene	40-50	108-88-3		
Methyl Ethyl Ketone	5-15	78-93-3	4050mg/kg oral mouse	40mg/m3/2hr inhalation mouse
Tetrahydrofuran	15-25	109-99-9	4500mg/kg oral rat	18000 ppm/m3/4hr inhalation rat
Propylene Oxide	0.5-1.5	75-56-9	380 mg/kg oral rat	4000 ppm/m3/4hr inhalation rat

SECTION 3 – HAZARDS IDENTIFICATION

Route of Entry
X Skin Contact X Skin Absorption X Eye Contact X Inhalation X Ingestion

[Emergency Overview] **Dizziness, Nausea, Shortness of Breath.**

[WHMIS Symbols] **Health.....3 Fire Hazard.....3 Reactivity.....0 Personal Protection.....X**

NFPA Health.....3 Fire Hazard.....3 Reactivity.....0 Personal Protection.....X

[Potential Health Effects]

Skin Contact- Irritation, Defatting, Dermatitus Possible. Eye Contact-Vapors may irritate eye, liquid and mist may severely irritate or damage the eye.

Inhalation- Dizziness, Nausea, Headache, Fatigue & Weakness

Ingestion- Irritation, Nausea, Vomiting.

SECTION 4 – FIRST AID MEASURES

Skin Contact-Flush with plenty of water.

Eye Contact-Flush with water. Get medical aid immediately.

Ingestion- Do not induce vomiting-Consult a physician immediately

Inhalation-remove to fresh air.

Product Identifier
Miccroshield

SECTION 5 – FIRE FIGHTING MEASURES

Flammability	X Yes ☐ No	If yes, under which conditions? Exposure to flame, sparks, high heat.
Means of Extinction CO2 Dry Chemical		
Flashpoint (°C) and Method -1.1C; 30F TCC	Upper Flammable Limit *(% by volume)* 10%	Lower Flammable Limit *(% by volume)* 2%
Autoignition Temperature (°C) 65 C	Explosion Data – Sensitivity to Impact	Explosion Data – Sensitivity to Static Discharge
Hazardous Combustion Products Carbon Monoxide		
[NFPA]		

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Leak and Spill Procedures
Remove ignition sources, soak up with absorbent material.
Dispose of in accordance with EPA, State, and Local Regulations.

SECTION 7 – HANDLING AND STORAGE

Handling Procedures and Equipment
Respiratory Protection-Use a Niosh approved respirator. Ventilation-Local Exhaust, Mechanical.
Protective Clothing-Long Sleeve Shirt, Trousers, Safety Shoes, &Solvent Resistant Gloves. Eye Protection-Splash Goggles.
Storage Requirements
Flammable- Store in cool, dry area. Keep containers tightly closed. Wash hand with soap and water before handling food.

SECTION 8 – EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Limits	☐ ACGIH TLV 150ppm	☐ OSHA PEL 150ppm	☐ Other (specify) ND
Specific Engineering Controls *(such as ventilation, enclosed process)*			
See section 7			

Personal Protective Equipment	X Gloves	X Respirator	X Eye	X Footwear	X Clothing	☐ Other
If checked, specify type						

Product Identifier

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State Liquid	**Odour and Appearance** Ketone	**Odour Threshold (ppm)**
Specific Gravity 0.95	**Vapour Density (air = 1)** 2.9 (Air=1)	**Vapour Pressure (mmHg)** ND
Evaporation Rate 3.5 (Butyl Acetate=1)	**Boiling Point (°C)** @760 mm Hg 194F	**Freezing Point (°C)** ND
pH ND	**Coefficient of Water/Oil Distribution** ND	**[Solubility in Water)** Not Soluble

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability X Yes ☐ No	**If no, under which conditions?**
Incompatibility with Other Substances X Yes ☐ No	**If yes, which ones?** Strong Oxidizing Agents
Reactivity, and under what conditions? Strong oxidizing Agents.	
Avoid contact-do not store near flame,sparks,or high heat sources.	
Hazardous Decomposition Products	
Thermal Decomposition May Liberate Carbon Monoxide and Carbon Dioxide.	

SECTION 11 – TOXICOLOGICAL INFORMATION

Effects of Acute Exposure	
See Section -3	
Effects of Chronic Exposure	
Dizziness, Nausea, Shortness of Breath.	
Irritancy of Product	
Skin Sensitization irritation,defatting, dermatitis possible	**Respiratory Sensitization** May cause dizziness-extended exposure
Carcinogenicity - IARC	**Carcinogenicity – ACGIH**
Reproductive Toxicity ND	**Teratogenicity ND**
Embryotoxicity ND	**Mutagenicity ND**
Name of Synergistic Products/Effects ND	

SECTION 12 – ECOLOGICAL INFORMATION

[Aquatic Toxicity] ND

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40CFR. Additionally, waste generators must consult
State and local hazardous waste regulation to ensure complete and accurate classification.
RCRA P-Series None Listed
RCRA U-Series CAS# 78-93-3: waste number U159 ;(-ignitable waste, toxic waste).

SECTION 14 – TRANSPORT INFORMATION

Special Shipping Information Flammable Liquid	
	PIN
TDG	**[DOT] Classification- UN1263 Paint Class 3 PG II** Flammable Liquid
[IMO] UN 1263 Paint Class 3 PG II Flammable Liquid	**[ICAO] Classification- UN1263 Paint Class 3 PG II**

SECTION 15 – REGULATORY INFORMATION

[WHMIS CLASSIFICATION]	**[OSHA]**
[SERA]	**[TSCA]**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

SECTION 16 – OTHER INFORMATION

Due to changing nature of regulatory requirements, the information in this document should NOT be considered all Inclusive or authoritative. Users Should make their own investigation to determine the suitability of the information
For their particular purposes. International, Federal, States, and Local regulations should be consulted to determine compliance with all required reporting requirements.
The information in this MSDS was obtained from sources, which we believe are reliable HOWEVER, THE INFORMATION IS PROVIDED WIHTOUT ANY WARRANTY, EXPRESS OR IMPLIED REGARDING IT CORRECTNESS. The conditions or methods of handling, storage use and disposal of the product are beyond our control and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME REPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS,DAMAGE OR EXPRENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HADLING, STORAGE,USE OR DISPOSAL OF THE PRODUCT. This MSDS was prepared and is to be used only for this product. If this product is used as a component in another product, this MSDS information may not be applicable.

ATTACHMENT II C

ENVIRO-CHEM LABORATORIES, INC.

100 Lakefront Drive, Hunt Valley, Maryland 21030 (410) 785-9739

FINAL REPORT OF ANALYSES

Eastern Plating Company
1200 South Baylis Street
Baltimore, MD 21224-

PROJECT NAME:
REPORT DATE: 26-Feb-08

LAB#- ECL015295-004 SAMPLE ID- Used Gloves
LOCATION-
DATE SAMPLED- 2/15/2008 TIME SAMPLED- SAMPLER- A. Amasia
DATE RECEIVED- 2/19/2008 TIME RECEIVED- 14:15
DELIVERED BY- A. Amasia RECEIVED BY- SES

ANALYSIS	METHOD	ANALYSIS DATE/TIME	BY	RESULT		DETECTION LIMIT
TCLP Extraction	EPA 1311					
Arsenic in TCLP Extract	EPA 6010	2/25/2008 10:49	CHK	< 0.050	mg/L	0.050
Barium in TCLP Extract	EPA 6010	2/25/2008 10:49	CHK	< 0.020	mg/L	0.020
Cadmium in TCLP Extract	EPA 6010	2/25/2008 10:49	CHK	< 0.005	mg/L	0.005
Chromium in TCLP Extrac	EPA 6010	2/25/2008 10:49	CHK	0.018	mg/L	0.010
Lead in TCLP Extract	EPA 6010	2/25/2008 10:49	CHK	< 0.050	mg/L	0.050
Mercury in TCLP Extract	EPA 7470	2/25/2008 14:56	CHK	< 0.001	mg/L	0.001
Selenium in TCLP Extrac	EPA 6010	2/25/2008 10:49	CHK	< 0.050	mg/L	0.050
Silver in TCLP Extract	EPA 6010	2/25/2008 10:49	CHK	< 0.010	mg/L	0.010

LABORATORY DIRECTOR

ATTACHMENT 11D

MARYLAND SPECTRAL SERVICES, INC.
1500 Caton Center Drive Baltimore, MD 21227

VOLATILE ORGANICS BY EPA GC/MS METHOD 8260

CLIENT SAMPLE ID:	GLOVES EASTERN PLTNG	TCLP BLANK EASTERN PLTNG	VBLK0229A1	TCLP LIMITS
LAB SAMPLE ID:	08022733	080228ZHE	METHOD BLANK	
SAMPLE DATE:	02/22/08	02/28/08		
RECEIVED DATE:	02/27/08	02/28/08		
ANALYSIS DATE:	02/29/08	02/29/08	02/29/08	
FILE NAME:	022733D	0228ZHE	0229VBLKA1	
INSTRUMENT ID:	MSA	MSA	MSA	
MATRIX:	WATER	WATER	WATER	UG/L
UNITS:	ug/L	ug/L	ug/L	
DILUTION FACTOR:	5.0	5.0	1.0	
VOLATILE COMPOUNDS				
Benzene	25 U	25 U	5.0 U	500
2-Butanone (MEK)	459	50 U	10 U	200000
Carbon Tetrachloride	25 U	25 U	5.0 U	500
Chlorobenzene	25 U	25 U	5.0 U	100000
Chloroform	25 U	25 U	5.0 U	6000
1,4-Dichlorobenzene	25 U	25 U	5.0 U	7500
1,2-Dichloroethane	25 U	25 U	5.0 U	500
1,1-Dichloroethene	25 U	25 U	5.0 U	700
Tetrachloroethene	25 U	25 U	5.0 U	700
Trichloroethene	25 U	25 U	5.0 U	500
Vinyl Chloride	25 U	25 U	5.0 U	200

B - Detected in lab blank U - Below reported quantitation level J - Estimated value
ug/L = Microgram per liter (parts per billion)

Response # 12

12. One open 55-gallon container was observed by the inspectors (attachment 2 – photo 11). The drum contained pump filters, in which Mr. Wellington Abhilashi, facility chemist, stated they had been used primarily with the chromic acid tank.

a. The filters are used in our process tanks and in our incoming city water filtration system. Periodically the filter cartridges are changed replaced with new filter cartridges. The used cartridges are stored in the drum until they are hauled.

b. The drum contained used filter cartridges from our process tanks and incoming city water filtration system.

There were 22 filter cartridges in the drum as listed below:

Qty	Tank	Tank contents
7	incoming water	city water
1	clear chromate	acidic chromate, flourides
2	soak cleaner	alkaline cleaner, pH 9
1	caustic etch	sodium hydroxide
1	deox	iron salts
1	hot water tank	DI water
2	nickel seal	nickel acetate
1	gold dye	gold dye
1	black dye	black dye
1	brown dye	brown dye

1 spill sock which was used to contain a leak from the incoming city water filter.

c. For MSDS data, please see the attached (attachment no. 12a – 12h).

d. A waste determination and LDR determination were made for the contents of the drum.

e. The determination was made during the first week of December 2007, when the first filters were placed in the drum.

f. The total drums contents was determined to be hazardous waste since the drum contained a mixture of hazardous and non-hazardous waste filters. The EPA Hazardous Waste Code associated for the hazardous waste filters is D007.

g. The total drum's contents was determined to be hazardous based on our process knowledge. The hazardous waste filters have been mixed in the drum with the non-hazardous waste filters for hauling. Attachments 12i – 12k contain lab reports for three of the filters, 2 of those 3 filters are hazardous.

h. The contents of the container was not shipped off-site. They will be scheduled for pick up before March 31, 2008.

i. The contents of the container was shipped off-site.

Response # 12

j. The contents of the container was shipped off-site.

ATTACHMENT 12A

DU PONT

MATERIAL SAFETY DATA SHEET

IDENTIFICATION

NAME
Nitric Acid

GRADE
36°, 38°, 40°, 42° Be Technical

SYNONYMS
Weak Nitric Acid

CAS NAME
Nitric Acid

I.D. NOS./CODES
NIOSH Registry No.: QU 5775000

MANUFACTURER/DISTRIBUTOR
E. I. du Pont de Nemours & Co., (Inc.)

ADDRESS
Wilmington, DE 19898

CHEMICAL FAMILY
Inorganic Acid

FORMULA
HNO_3

CAS REGISTRY NO.
7697-37-2

TSCA INVENTORY STATUS
Reported/Included

PRODUCT INFORMATION PHONE
(800) 441-9442

MEDICAL EMERGENCY PHONE
(800) 441-3637

TRANSPORTATION EMERGENCY PHONE
CHEMTREC (800) 424-9300

PHYSICAL DATA

BOILING POINT, 760 mmHg
116°C to 120°C (241°F to 248°F)
See page 2 for specific grades

SPECIFIC GRAVITY 1.33-1.40
See page 2 for specific grades.

VAPOR DENSITY
1 (same as air)

pH INFORMATION
Approximately 1

FORM
Liquid

COLOR
Colorless to light brown

MELTING POINT
-19° to -32°C (-3°F to 25°F)
See page 2 for specific grades.

VAPOR PRESSURE
8 to 11 mmHg at 25°C (77°F)
17 to 25 mmHg at 38°C (100°F)

SOLUBILITY IN H_2O
100%

EVAPORATION RATE (BUTYL ACETATE = 1)
Approximately 1

APPEARANCE
Clear

ODOR
Acrid

PHYSICAL PROPERTIES

Grade	Boiling Point °C	Boiling Point °F	Melting Point °C	Melting Point °F	Specific Gravity
36° Be Tech.	116	241	-19	-3	1.330
38° Be Tech.	117	243	-20	-4	1.355
40° Be Tech.	119	246	-24	-12	1.381
42° Be Tech.	120	248	-32	-25	1.408

HAZARDOUS COMPONENTS

MATERIAL(S)	APPROXIMATE %
Nitric Acid (CAS NO. 7697-37-2)	
36° Be Technical	52.3
38° Be Technical	56.5
40° Be Technical	61.4
42° Be Technical	67.2

NONHAZARDOUS COMPONENTS

Water, CAS No. 7732-18-5	33-48

HAZARDOUS REACTIVITY

INSTABILITY
Unstable with heat; releases toxic gases.

INCOMPATIBILITY
Reacts vigorously with combustible or readily oxidizable materials, organic solvents, metal powders, carbides, cyanides, sulfides, and alkalis.

DECOMPOSITION
Releases toxic oxides of nitrogen.

POLYMERIZATION
Will not occur.

FIRE AND EXPLOSION DATA

FLASH POINT
Nonflammable, but can ignite some combustible materials.

FLAMMABLE LIMITS IN AIR, % BY VOL.
LOWER Not applicable.
UPPER Not applicable.

AUTOIGNITION TEMPERATURE
Will not burn.

AUTODECOMPOSITION TEMPERATURE
Will not burn.

FIRE AND EXPLOSION HAZARDS
Nitric Acid increases the flammability of, and can ignite many organic materials such as wood, solvents, etc., and can release toxic oxides of nitrogen. Spillage may cause fire.

EXTINGUISHING MEDIA

For fires in area: Water, dry chemical, or soda ash. Use water spray to cool containers and reduce vapors.

SPECIAL FIRE FIGHTING INSTRUCTIONS

Evacuate area and stay upwind. Wear full acid protective clothing with self-contained breathing apparatus where possibility of contact with acid or fumes exists. Runoff from fire control may cause pollution. (See Disposal Information section.)

HEALTH HAZARD INFORMATION

PRINCIPLE HEALTH HAZARDS (Including Significant Routes, Effects, Symptoms of Over-Exposure, and Medical Conditions Aggravated by Exposure)

Liquid and vapor cause severe burns to eyes, skin, nose, and throat. Harmful if inhaled and may cause delayed lung injury. Spillage may cause fire or liberate dangerous gas.

Inhalation 1-hour LC_{50} = 2500 ppm in rats
Oral LD_{50} : 50-500 mg/kg (species unspecified)

The compound is corrosive to skin and eyes. Toxic effects described in animals from exposure by inhalation, ingestion, or skin contact include respiratory irritation, and corrosion of mucosal surfaces. Tests in animals demonstrate no carcinogenic activity.

Human health effects of overexposure by inhalation, ingestion, or skin or eye contact may initially include: skin irritation with discomfort or rash; eye irritation with discomfort, tearing, or blurring of vision; and irritation of the upper respiratory passages. Higher exposures may lead to these effects: skin burns or ulceration; eye corrosion with corneal or conjunctival ulceration; and severe irritation of the respiratory passages. Ingestion may cause severe corrosion of mucosal surfaces. Prolonged exposure to fumes may cause erosion of the teeth followed by jaw necrosis. Significant skin permeation and systemic toxicity, after contact, appear unlikely. There are no reports of human sensitization. Individuals with preexisting deseases of the lungs may have increased susceptibility to the toxicity of excessive exposures.

CARCINOGENICITY

Not listed as a carcinogen by IARC, NTP, OSHA, ACGIH, or Du Pont.

EXPOSURE LIMITS [PEL (OSHA), TLV (ACGIH), AEL (DU PONT), ETC.]

The OSHA 8-hour Time Weighted Average (TWA) and ACGIH TLV(R) TWA for nitric acid and nitric oxide are: HNO_3 = 2 ppm, 5 mg/m^3; NO = 25 ppm, 30 mg/m^3; and for nitrogen dioxide are: NO_2 = 5 ppm, 9 mg/m^3 ceiling (OSHA), and 3 ppm, 6 mg/m^3 (ACGIH). The ACGIH Short Term Exposure Limit (STEL) for nitric acid and nitrogen dioxide are: HNO_3 = 4 ppm, 10 mg/m^3; NO_2 = 5 ppm, 10 mg/m^3. The Du Pont Acceptable Exposure Limit (AEL) 8 and 12-hour TWA for nitric acid is 5 mg/m^3, and for nitrogen dioxide is 3 ppm.

SAFETY PRECAUTIONS

Do not breathe vapor.
Do not get in eyes, on skin, on clothing.
Wash thoroughly after handling.

HEALTH HAZARD INFORMATION (cont.)

FIRST AID

If inhaled, remove to fresh air immediately. Call a physician. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen.

In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash clothing before reuse.

If swallowed, do not induce vomiting; give large quantities of water. Call a physician immediately. Never give anything by mouth to an unconscious person.

PROTECTION INFORMATION

GENERALLY APPLICABLE CONTROL MEASURES

Good general ventilation should be provided to keep vapor and mist concentrations below the exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Have available and wear as appropriate for exposure conditions when handling containers, or operating equipment containing nitric acid: chemical splash goggles; full-length face shield/splash goggle combination; neoprene or PVC gauntlet gloves, boots, and apron; hard hat with brim; long sleeve wool, polyester, or acrylic clothing; acid suit with hood; and OSHA permissible respiratory protection. In case of emergency, or when there is a strong possibility of considerable exposure, wear a complete acid suit with hood, gloves, boots, and breathing air supply. Do not use chemical cartridge respirators with oxidizable sorbants.

DISPOSAL INFORMATION

AQUATIC TOXICITY

Nitric Acid is moderately toxic (96-hr LC_{50} = 1-50 mg/L).

SPILL, LEAK OR RELEASE

Evacuate area; keep upwind until gas has dispersed. Wear self-contained breathing apparatus if necessary to enter spill area. Dike large spills. Flush with plenty of water applied to entire spill area. Neutralize washings with lime or soda ash. Do not flush to sewer before neutralizing. Comply with Federal, State and local regulations on reporting releases.

WASTE DISPOSAL

Comply with Federal, State, and local regulations. If approved, drain neutralized washings to a waste treatment plant or transfer to a disposal contractor.

SHIPPING INFORMATION

DOT (172.101)

PROPER SHIPPING NAME
Nitric Acid (over 40%)

HAZARD CLASS
Oxidizer

UN NO. 2031

DOT LABEL(S) Oxidizer, Corrosive

DOT PLACARD (TT/TC)
Oxidizer

DOT/IMO (172.102)

PROPER SHIPPING NAME
Nitric Acid

HAZARD CLASS
Corrosive Material, 8

UN NO. 2031

OTHER INFORMATION

REPORTABLE QUANTITY
1000 lb/454 kg

SHIPPING CONTAINERS
Tank cars, tank trucks

STORAGE CONDITIONS
Keep container closed. Keep away from heat, sparks, and flame. Loosen closures carefully. Never use pressure to empty. Containers must not be washed out or used for other purposes. Do not store near organic or other readily oxidizable materials, metal powders, cyanides, sulfides, or carbides.

NPCA-HMIS Ratings		NFPA Ratings	
Health	3	Health	3
Flammability	0(1)	Flammability	0
Reactivity	1	Reactivity	0
Personal Protection	-	Unusual Hazard	OXY

Personal Protection rating to be supplied by user depending on use conditions.

(1) Product will not burn but is an oxidizer, i.e., it can cause nearby combustible materials to burn more readily.

ADDITIONAL INFORMATION AND REFERENCES

For further information, see the Du Pont "Nitric Acid" Storage and Handling Bulletin and Data Sheet.

DATE OF LATEST REVISION/REVIEW 11/87

PERSON RESPONSIBLE FOR MSDS:
J. C. Watts
Du Pont Co.
C&P Dept., Chestnut Run-709
Wilmington, DE 19898,
(302) 999-4946

103794/B

ATTACHMENT 12B

Material Safety Data Sheet

Chemetall Oakite

Aluminum Cleaner® NST

Version *1 3*
Revision Date 11/22/2006

Print Date 01/18/2007

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Aluminum Cleaner® NST
MSDS Number	:	REL_3180
Company	:	OAKITE PRODUCTS INC 675 Central Avenue New Providence, NJ 07974
Telephone	:	+18005264473
Telefax	:	+19084644658
Emergency telephone no	:	CHEMTREC - 800-424-9300

SECTION 2. HAZARDOUS COMPONENTS INFORMATION

Component	CAS-No.	Weight %
Trade Secret Registry	735517-5127P	1.00 - 10.00
Trade Secret Registry	735517-5143P	1.00 - 10.00
Diethylene Glycol Butyl Ether	112-34-5	1.00 - 5.00
Trade Secret Registry	735517-5126P	1.00 - 5.00
Trade Secret Registry	735517-5097P	1.00 - 5.00
Potassium p-toluene sulfonate	16106-44-8	1.00 - 5.00

Unidentified ingredients are considered not hazardous under Federal Hazard Communication Standard (29CFR 1910.1200).

SECTION 3. HAZARDS IDENTIFICATION

Emergency Overview

Form	:	liquid
Colour	:	amber
Odour	:	mild
Hazard Summary	:	Harmful by inhalation and if swallowed.Irritating to eyes and skin.

Route(s) of Entry :	Inhalation	Skin	Ingestion
	yes	yes	yes

Carcinogenicity:

NTP	No substance in this product is listed by NTP as a carcinogen
IARC	No substance in this product is listed by IARC as a carcinogen
OSHA	No substance in this product is regulated by OSHA as a carcinogen

SECTION 4. FIRST AID MEASURES

Inhalation	:	Remove person to fresh air. If signs/symptoms continue, get medical attention.
Skin contact	:	Wash off immediately with plenty of water for at least 15 minutesIf skin irritation persists, call a physician.
Eye contact	:	Rinse immediately with plenty of water for at least 15 minutesKeep eye wide open while rinsingSeek medical advice.
Ingestion	:	Rinse mouthDrink 1 or 2 glasses of waterNever give anything by mouth to an unconscious personObtain medical attention.

SECTION 5. FIRE-FIGHTING MEASURES

Flash point	:	Note: does not flash
Lower explosion limit	:	Note: Not applicable.
Upper explosion limit	:	Note: Not applicable.
TDG Flammability Class	:	NONE
Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Methods for cleaning up	:	Soak up with inert absorbent material. Flush with plenty of water.
Additional advice	:	Never return spills in original containers for re-use.

SECTION 7. HANDLING AND STORAGE

Storage

Requirements for storage areas and containers	:	Keep containers tightly closed to avoid contamination Store indoors in a cool, well-ventilated place

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	ACGIH TLV (TWA)	OSHA PEL (TWA)
Trade Secret Registry	N.D.	N.D.
Trade Secret Registry	N.D.	N.D.
Diethylene Glycol Butyl Ether	N.D.	N.D.
Trade Secret Registry	N.D.	N.D.
Trade Secret Registry	N.D.	N.D.
Potassium p-toluene sulfonate	N.D.	N.D.

Eye protection : Chemical resistant goggles must be worn.

Hand protection : impervious gloves

Skin and body protection : rubber or plastic apron

Respiratory protection : Use NIOSH approved respiratory protection.

Hygiene measures : Avoid contact with skin, eyes and clothing
Wear suitable gloves and eye/face protection
Wear suitable protective clothing
Wash hands before breaks and immediately after handling the product
Provide adequate ventilation
Do not inhale fumes
Keep away from food and drink

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

pH : 10.5
Note: +/- 0.5

Melting point/range : -3 °C (-3 °C)

Boiling point/range : Note: no data available

Vapour pressure : Note: no data available

Bulk density : 8.9 lb/gal

Water solubility : Note: completely soluble

Partition coefficient (n-octanol/water)	:	Note: no data available
Percent of Volatile by Weight excluding water	:	4.0
Relative density	:	1.067
Evaporation rate	:	1 Note: Water = 1

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	:	freezing
Materials to avoid	:	strong acids, strong oxidizing agents Nitrous acid and other nitrosating agents
Hazardous decomposition products	:	carbon dioxide (CO2) carbon monoxide oxides of phosphorus nitrogen oxides (NOx)

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicity	:	Mixture; Not Determined.
Acute oral toxicity		
Diethylene Glycol Butyl Ether	:	LD50, rat Dose: 6,560 mg/kg

SECTION 12. ECOLOGICAL INFORMATION

Not Available

SECTION 13. DISPOSAL CONSIDERATIONS

Advice on Disposal	:	Refer to applicable local, state and federal regulations as well as industry standards.

SECTION 14. TRANSPORT INFORMATION

Refer to Bill of Lading.

SECTION 15. REGULATORY INFORMATION

TSCA Status	:	All components of this material are on the US TSCA Inventory.
SARA 313 Components	:	Diethylene Glycol Butyl Ether CAS-No. 112-34-5
SARA 313 Components	:	N.D.
CERCLA Reportable Quantity	:	N.D.
California Prop. 65	:	N.D
NFPA	:	1 0 0
HMIS	:	1 0 0 C
WHMIS	:	D2B: Toxic Material Causing Other Toxic Effects

SECTION 16. OTHER INFORMATION

Further information

Oakite Products, Inc. warrants that the products described herein will conform with its published specifications. The products supplied by Oakite and information related to them are intended for use by buyers having necessary industrial skill and knowledge. Buyers should undertake sufficient verification and testing to determine the suitability of the Oakite materials for their own particular purpose. Since buyer's conditions of use of products are beyond Oakite's control, Oakite does not warrant any recommendations and information for the use of such products. OAKITE DISCLAIMS ALL OTHER WARRANTIES INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE IN CONNECTION WITH THE USE OF ITS PRODUCTS.

ATTACHMENT 12C

Univar USA Inc.
17425 NE Union Hill Road
Redmond, WA 98052
(425) 889-3400

UNIVAR

For Emergency Assistance involving chemicals call - CHEMTREC (800) 424-9300

==========

The Version Date and Number for this MSDS is : 08/08/2006 - #003

PRODUCT NAME: NUVAT
CLASSIC

MSDS NUMBER:
P21950VS

DATE ISSUED:
03/30/2005

SUPERSEDES:
07/30/2003

ISSUED BY:
004461

****
****

Material Safety Data
Sheet

Section 1 - Chemical Product and Company
Identification

Product Trade Name: NUVAT
CLASSIC

Manufacturer
Information
Heatbath Corporation Contact Phone: (413) 452-
2000

P.O. Box 51048 8:00 AM 5:00 PM
Indian Orchard, MA 01151-5048 CHEMTREC Emergency Phone: (800) 424-9300
24 Hours

Section 2 - Composition / Information on Ingredients

CAS #	Component	Percent
1310-73-2	Sodium hydroxide	10-30
6834-92-0	Sodium metasilicate	10-30
7558-79-4	Disodium phosphate	10-30
112-34-5	Diethylene glycol monobutyl ether	1-10
Proprietary	Surfactant	1-10

Component Related Regulatory Information
This product may be regulated, have exposure limits or other information identified as the following: Glycol ethers.

Additional Information:
This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

Section 3 - Hazards Identification

Emergency Overview:
DANGER! CORROSIVE! Powder. Contact with this material will cause burns to the skin, eyes and mucous membranes.

Eye

Contact:
This product is severely irritating to the eyes and may cause irreversible damage including burns and blindness.

Skin Contact:
Corrosive to the skin. Contact with the skin or mucous membranes may cause severe irritation and burns. Prolonged or repeated skin contact may cause dermatitis.

Skin Absorption:
None expected.

Ingestion:
This product may produce corrosive damage to the gastrointestinal tract if it is swallowed. Ingestion of this product may cause nausea, vomiting and diarrhea. Small amounts of this product, if aspirated into the lungs, may cause mild to severe pulmonary injury.

Inhalation:
Inhalation of dusts of this product may cause severe irritation and burns to the respiratory tract.

Medical Conditions Aggravated by Exposure:
Pre-existing eye, skin and respiratory disorders.

Section 4 - First Aid Measures

Eye Contact:
In case of contact with the eyes, rinse immediately with plenty of water for

15 minutes, and seek immediate medical attention.

Skin Contact:
Immediately take off all contaminated clothing. For skin contact, flush with large amounts of water. Seek immediate medical attention.

Ingestion:
If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. Give one to two glasses of water or milk. Never give anything by mouth to a victim who is unconscious or is having convulsions.

Inhalation:
If inhaled, immediately remove the affected person to fresh air. Call a physician if symptoms develop or persist.

First Aid: Notes to Physician
This material, if aspirated into the lungs, may cause chemical pneumonitis; treat the affected person appropriately

Section 5 - Fire Fighting Measures

Flash Point: Not applicable
Method Used: Not applicable
Upper Flammable Limit (UFL): Not applicable
Lower Flammable Limit (LFL): Not applicable

Flammability Classification: Non-flammable

Fire & Explosion Hazards:
Not a fire

hazard.

Decomposition Products:
Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Extinguishing Media:
Use any media suitable for the surrounding fires.

Fire-Fighting Instructions:
Firefighters should wear full protective clothing including self-contained breathing apparatus.

Section 6 - Accidental Release Measures

Containment and Clean up procedures must be conducted in accordance with all local, state, and federal regulations.

Containment Procedures:
Stop the flow of material, if this is without risk. Wear appropriate protective equipment and clothing during cleanup.

Clean-Up Procedures:
Sweep up or gather material and place in appropriate container for disposal.
Dispose of collected material according to regulation.

Section 7 - Handling and Storage

Handling

Procedures:
Do not get this material in your eyes, on your skin, or on your clothing.
Wash thoroughly after handling. Do not breathe dust from this material. Use this product with adequate ventilation. Keep this product from heat, sparks, or open flame. For industrial use only. Considerable heat is generated when water or acid is added, therefore when making solutions always add the caustic to the water or acid with constant stirring. If caustic substance or solution becomes concentrated in one area, or if added too rapidly or if added to hot or cold water a rapid temperature increase can result in dangerous boiling water and/or splashing or may cause immediate violent eruption.

Storage Procedures:
Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials.

Section 8 - Exposure Controls / Personal Protection

Exposure Guidelines:
A: General Product Information
Follow all applicable exposure limits.

B: Component Exposure Limits
Sodium hydroxide (1310-73-2)
ACGIH: C 2 mg/m3
OSHA: C 2 mg/m3
NIOSH: C 2 mg/

m3

Engineering
Controls:
Ventilation should effectively remove and prevent buildup of any
dust
generated from the handling of this
product.

PERSONAL PROTECTIVE
EQUIPMENT

Eyes/Face Protective
Equipment:
Wear chemical goggles or a full face
shield.

Skin
Protection:
Use impervious gloves. Gloves should be tested to determine suitability
for
prolonged contact. Use of impervious apron and boots are
recommended.

Respiratory
Protection:
If ventilation is not sufficient to effectively prevent buildup of
dust,
appropriate NIOSH/MSHA respiratory protection must be
provided.

Personal Protective
Equipment:
Eyewash fountains and emergency showers are
required.

Section 9 - Physical & Chemical
Properties

Physical State:
Powder
Appearance:
Tan
Odor: Mild
surfactant
Vapor Pressure: Not
applicable

Vapor Density:	Not applicable
Boiling Point:	Not applicable
Specific Gravity:	Bulk Density: 64 lb/ft3
pH:	12.9 (1% W/W dilution)
Viscosity:	Not applicable
VOC:	Not applicable
Solubility Water:	Appreciable
Evaporation Rate:	Not applicable
Percent Volatile:	Not applicable
Percent Solids:	100

Section 10 - Chemical Stability & Reactivity Information

Chemical Stability:
Stable under normal conditions.

Conditions to Avoid:
Keep away from heat, ignition sources and incompatible materials.

Incompatibility:
This product reacts with acids. This product may react with oxidizing agents.
This product may react with reducing agents. Adding water to this product may cause localized overheating and splattering.

Decomposition Products:
Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight

hydrocarbons.

Hazardous
Polymerization:
Will not
occur.

Section 11 - Toxicological
Information

Acute
Toxicity:
A: General Product
Information
No information available for the
product.

B: Component Analysis - LD50/
LC50
Sodium metasilicate (6834-92-
0)
Oral LD50 Rat : 1153 mg/
kg
Oral LD50 Mouse : 770 mg/
kg
Disodium phosphate (7558-79-
4)
Oral LD50 Rat : 17 gm/
kg
Diethylene glycol monobutyl ether (112-34-
5)
Oral LD50 Rat : 5660 mg/
kg
Oral LD50 Mouse : 2400 mg/
kg
Dermal LD50 Rabbit : 2700 mg/
kg

Carcinogenicity:
A: General Product
Information
No information available for the
product.

B: Component
Carcinogenicity
None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH,

or
NTP.

Chronic
Toxicity
No information available for the
product.

Other Toxicological
Information:
None
available.

Section 12 - Ecological
Information

Ecotoxicity:
A: General Product
Information
No data available for this
product.

B: Component Analysis - Ecotoxicity - Aquatic
Toxicity
Diethylene glycol monobutyl ether (112-34-
5)

Test & Species Conditions		
LC50 (96 hr) bluegill	1300 mg/L. Cond	Static, 23 deg C.
LC50 (24 hr) goldfish	2700 mg/L.	
LC50 (24 hr) water flea	2850 mg/L.	

Environmental
Fate:
No data available for this
product.

Section 13 - Disposal
Considerations

Wastes must be tested using methods described in 40 CFR Part 261. It is
the
generator's responsibly to determine if the waste meets

applicable
definitions of hazardous wastes. State and local regulations may differ from
Federal disposal regulations. Dispose of waste material according to Local,
State, Federal and Provincial Environmental
Regulations.

Section 14 - Transportation Information

US DOT Information

Proper Shipping Name
Corrosive Solid, Basic, Inorganic, N.O.S., (Contains Sodium Hydroxide, Sodium
Metasilicate)
Hazard Class
8
UN / NA Number
UN3262
Packing Group II Product RQ (lb)

Section 15 - Regulatory Information

US Federal Regulations
A: General Product Information
No additional information available.

B: Component Analysis
This material contains one or more of the following chemicals required to be
identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313
(40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Sodium hydroxide (1310-73-2)

CERCLA: final RQ = 1000 pounds (454 kg)

Disodium phosphate (7558-79-4)
CERCLA: final RQ = 5000 pounds (2270 kg)

Diethylene glycol monobutyl ether (112-34-5)
SARA 313: form R reporting required for 1.0% de minimis concentration
(applies to R-(OCH2CH2)n-OR' ethers, where n = 1,2, or 3; R=alkyl C7 or less
or R = phenyl or alkyl subst. phenyl; R' = H or alkyl C7 or less, or OR'
consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or
sulfonate) (related to Glycol ethers)

CERCLA: (Includes mono- and di- ethers of ethylene glycol; diethylene glycol
and triethylene glycol R(OCH2CH2)n-OR' where n = 1 2 or 3; R = alkyl or aryl
groups; R' = R h or groups which when removed yield glycol ethers with the
structure R-(OCH2CH2)n-OH. Polymers are excluded from glycol category);
Statutory RQ = 1 pound (.454 kg); no final RQ is being assigned to the
generic or broad class (related to Glycol ethers)

SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No Reactive: Yes

State Regulations
A: General Product Information
No additional information available.

B: Component Analysis - State
The following components appear on one or more of the following

state
hazardous substances
lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Sodium hydroxide	1310-73-2	Yes	Yes	Yes	Yes	Yes	Yes
Disodium phosphate	7558-79-4	Yes	No	Yes	No	Yes	Yes
Diethylene glycol monobutyl ether (1 related to Glycol ethers)	112-34-5	No	No	No	No	No	Yes

Other
Regulations
A: General Product
Information
All components are on the U.S. EPA TSCA Inventory
List.

B: Component Analysis -
Inventory

Component	CAS #	TSCA	DSL	EINECS
_Sodium hydroxide	1310-73-2	Yes	Yes	Yes
Sodium metasilicate	6834-92-0	Yes	Yes	Yes
Disodium phosphate	7558-79-4	Yes	Yes	Yes
Diethylene glycol monobutyl ether	112-34-5	Yes	Yes	Yes

C: Component Analysis - WHMIS IDL The following components are
identified
under the Canadian Hazardous Products Act Ingredient Disclosure
List:

Component	CAS #	Minimum Concentration
Sodium hydroxide	1310-73-2	1% item 1442 (998)
Sodium metasilicate	6834-92-0	1% item 1448 (1084)
Diethylene glycol monobutyl ether	112-34-5	1% item 581

(814)

Section 16 - Other Information

NFPA Ratings: Health: 3 Fire: 0 Reactivity: 2
Other:
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

HMIS Ratings: Health: 3 Fire: 0 Reactivity: 2 Pers. Prot.:
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe
* = Chronic hazard

Key/ Legend:
ACGIH = American Conference of Governmental Industrial Hygienists
NFPA = National Fire Protection Association
CERCLA = Comprehensive Environmental Response, Compensation and Liability Act
NIOSH = National Institute for Occupational Safety and Health
EPA = Environmental Protection Agency
NTP = National Toxicology Program
HMIS = Hazardous Material Identification System
OSHA = Occupational Safety and Health Administration
IARC = International Agency for Research on Cancer
SARA = Superfund Amendments and Reauthorization Act
MSHA = Mine Safety and Health Administration
TSCA = Toxic Substance Control Act

For Additional Information:
Contact: MSDS Coordinator - Univar USA
During business hours, Pacific Time - (425) 889-3400

NOTICE
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Do not use ingredient information and/or ingredient percentages in this MSDS as a product specification. For product specification information refer to a Product Specification Sheet and/or a Certificate of Analysis. These can be obtained from your local Univar USA Sales Office.

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, Univar USA makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Univar USA's control. Therefore, users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes, and they assume all risks of their use, handling, and disposal of the product or from the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein and does not relate to its use in combination with any other material or in any other process.

END OF MSDS

ATTACHMENT 12D

Material Safety Data Sheet

Chemetall Oakite

Deoxidizer® LNC

Version 1.5
Revision Date 11/27/2006

Print Date 01/19/2007

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Deoxidizer® LNC
MSDS Number	:	REL_3850
Company	:	OAKITE PRODUCTS INC 675 Central Avenue New Providence, NJ 07974
Telephone	:	+18005264473
Telefax	:	+19084644658
Emergency telephone no	:	CHEMTREC - 800-424-9300

SECTION 2. HAZARDOUS COMPONENTS INFORMATION

Component	CAS-No.	Weight %
FERRIC SULFATE	10028-22-5	40.00 - 50.00
Nitric acid	7697-37-2	10.00 - 20.00
Trade Secret Registry	735517-5053P	1.00 - 5.00

Unidentified ingredients are considered not hazardous under Federal Hazard Communication Standard (29CFR 1910.1200).

SECTION 3. HAZARDS IDENTIFICATION

Emergency Overview

Form	:	liquid
Colour	:	amber
Odour	:	pungent
Hazard Summary	:	Causes severe burns.Liquid or vapor causes burns which may be delayed.Also harmful by inhalation and if swallowed.

Route(s) of Entry :	Inhalation	Skin	Ingestion
	yes	yes	yes

Carcinogenicity:

NTP	No substance in this product is listed by NTP as a carcinogen
IARC	No substance in this product is listed by IARC as a carcinogen
OSHA	No substance in this product is regulated by OSHA as a carcinogen

SECTION 4. FIRST AID MEASURES

Inhalation : If inhaled, remove to fresh air. If symptoms persist, call a

		physician If breathing is irregular or stopped, administer artificial respiration
Skin contact	:	Wash off immediately with plenty of water for at least 15 minutesPay particular attention to skin under nails.Take off contaminated clothing and shoes immediatelyGet medical attention immediately if irritation develops and persists
Eye contact	:	Rinse immediately with plenty of water for at least 15 minutesKeep eye wide open while rinsingGet medical attention immediately
Ingestion	:	Rinse mouthGive several glasses of water to drink followed by milk of magnesia.Never give anything by mouth to an unconscious personGet medical attention immediately

SECTION 5. FIRE-FIGHTING MEASURES

Flash point	:	Note: does not flash
Lower explosion limit	:	Note: Not applicable.
Upper explosion limit	:	Note: Not applicable.
Autoignition temperature	:	No information available.
TDG Flammability Class	:	NONE
Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Special protective equipment for fire-fighters	:	Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	:	Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation.
Methods for cleaning up	:	Wear personal protective equipment. Cover with dry sodium carbonate. Shovel into suitable container for disposal.
Additional advice	:	Never return spills in original containers for re-use.

SECTION 7. HANDLING AND STORAGE

Handling

Handling : Unscrew closure slowly. Allow all pressure to escape through threads before removing closure

Storage

Requirements for storage areas and containers : Keep containers tightly closed to avoid contamination
Store indoors in a cool, well-ventilated place
Keep container out of sun and away from heat.
Keep container closed to prevent drying out.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	ACGIH TLV (TWA)	OSHA PEL (TWA)
FERRIC SULFATE	1 ppm soluble salts as FeN.D.	N.D.
Nitric acid	5.2 mg/m3 N.D.	5 mg/m3 N.D.
Trade Secret Registry	N.D.	N.D.

Eye protection : If splashes are likely to occur, wear:
tightly fitting safety goggles
face-shield

Hand protection : impervious gloves

Skin and body protection : complete suit protecting against chemicals

Respiratory protection : If the occupational exposure limits cannot be met, suitable respiratory equipment should be worn .

Hygiene measures : Avoid contact with skin, eyes and clothing
Wear suitable gloves and eye/face protection
Wear suitable protective clothing
Wash hands before breaks and immediately after handling the product
Provide adequate ventilation
Do not inhale fumes
Keep away from food and drink

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

pH	:	< 2.5
Melting point/range	:	-4.4 °C (-4.4 °C)
Boiling point/range	:	Note: no data available
Vapour pressure	:	Note: no data available
Bulk density	:	12.00 lb/gal
Water solubility	:	Note: completely soluble
Partition coefficient (n-octanol/water)	:	Note: no data available
Percent of Volatile by Weight excluding water	:	0
Relative density	:	1.440
Evaporation rate	:	1 Note: Water = 1

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	:	freezing Avoid letting the product become dry.
Materials to avoid	:	bases Warning! Do not use together with other products; may release dangerous gases (chlorine). Avoid prolonged contact of concentrate with glass, ceramic, or concrete.
Hazardous decomposition products	:	nitrogen oxides (NOx) sulphur oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicity	:	Mixture; Not Determined.

SECTION 12. ECOLOGICAL INFORMATION

Not Available

SECTION 13. DISPOSAL CONSIDERATIONS

Advice on Disposal : Refer to applicable local, state and federal regulations as well as industry standards.

SECTION 14. TRANSPORT INFORMATION

Refer to Bill of Lading.

SECTION 15. REGULATORY INFORMATION

TSCA Status	:	All components of this material are on the US TSCA Inventory.	
SARA 313 Components	:	Nitric acid	CAS-No. 7697-37-2
SARA 313 Components	:	N.D.	
CERCLA Reportable Quantity	:	FERRIC SULFATE	1,000 Pounds
	:	Nitric acid	1,000 Pounds
California Prop. 65	:	N.D	
NFPA	:	3 0 0 Corrosive Acid	
HMIS	:	3 0 1 J	
WHMIS	:	E: Corrosive Material	

SECTION 16. OTHER INFORMATION

Further information

Oakite Products, Inc. warrants that the products described herein will conform with its published specifications. The products supplied by Oakite and information related to them are intended for use by buyers having necessary industrial skill and knowledge. Buyers should undertake sufficient verification and testing to determine the suitability of the Oakite materials for their own particular purpose. Since buyer's conditions of use of products are beyond Oakite's control, Oakite does not warrant any recommendations and information for the use of such products. OAKITE DISCLAIMS ALL OTHER WARRANTIES INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE IN CONNECTION WITH THE USE OF ITS PRODUCTS.

ATTACHMENT 12E

STONE CHEMICAL COMPANY
1555 Naperville/Wheaton Rd, Suite 114
Naperville, Illinois 60563 USA
(630) 305-0538

MATERIAL SAFETY DATA SHEET

AN545L ANODIZING SEAL

MANUFACTURED BY: STONE CHEMICAL COMPANY
1555 NAPERVILLE/WHEATON RD, SUITE 114
NAPERVILLE, ILLINOIS 60563
(630) 305-0538

EFFECTIVE DATE: JANUARY 1, 2001

CHEMICAL EMERGENCY: **1-800-535-5053 (INFOTRAC)**

SECTION I - PRODUCT INFORMATION

TRADE NAME: STONE AN545L ANODIZING SEAL

CHEMICAL NAME SYNONYMS: ANODIZING SEAL

CHEMICAL FAMILY: NICKEL ACETATE

D.O.T. IDENTIFICATION #: NOT D.O.T. REGULATED

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT:	**PERCENT:**
NICKEL ACETATE TETRAHYDRATE C.A.S. #373-02-4	<25%

SECTION III - PHYSICAL DATA

APPEARANCE: CLEAR GREEN LIQUID

SPECIFIC GRAVITY: 1.074 @ 25°C

ODOR: MILD ACETIC ODOR

PH: 5.3-5.6

BOILING POINT: 212 DEGREES F.

VAPOR PRESSURE: N/A

EVAPORATION RATE: N/A

VAPOR DENSITY (AIR=1): N/A

PERCENT VOLATILE BY VOLUME: N/A

SOLUBILITY IN WATER: 100%

STONE CHEMICAL COMPANY
1555 Naperville/Wheaton Rd, Suite 114
Naperville, Illinois 60563 USA
(630) 305-0538

MATERIAL SAFETY DATA SHEET
AN545L ANODIZING SEAL

SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT (METHOD USED): NONE

FLAMMABLE LIMITS LEL: N/A UEL: N/A

EXTINGUISHING MEDIA: FOR FIRES IN AREA USE APPROPRIATE MEDIA. FOR EXAMPLE: WATER SPRAY, DRY CHEMICAL, CARBON DIOXIDE, ALCOHOL FOAM.

SPECIAL FIRE FIGHTING PROCEDURES: WEAR PROTECTIVE CLOTHING INCLUDING A NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS.

UNUSUAL FIRE EXPLOSION HAZARDS: NONE

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: N/A

EFFECTS OF OVEREXPOSURE:

EYE CONTACT: CAUSES IRRITATION, POSSIBLY SEVERE.

SKIN CONTACT: MAY CAUSE IRRITATION, ESPECIALLY ON PROLONGED CONTACT.

INHALATION: INHALATION CAUSES COUGHING AND IRRITATION OF NOSE, THROAT, AND MUCOUS MEMBRANES.

INGESTION: MAY CAUSE NAUSEA AND VOMITING.

CHRONIC OVEREXPOSURE: MAY AGGRAVATE EXISTING SKIN, EYE, AND LUNG CONDITIONS.

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1555 Naperville/Wheaton Rd, Suite 114
Naperville, Illinois 60563 USA
(630) 305-0538

MATERIAL SAFETY DATA SHEET
AN545L ANODIZING SEAL

SECTION VI - FIRST AID RECOMMENDATIONS

EYES: IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES, HOLDING EYELIDS APART TO ENSURE FLUSHING OF ENTIRE SURFACE. WASHING WITHIN ONE MINUTE IS ESSENTIAL TO ACHIEVE MAXIMUM EFFECTIVENESS. SEEK MEDICAL ATTENTION.

SKIN: WASH THOROUGHLY WITH SOAP AND WATER, REMOVE CONTAMINATED CLOTHING AND FOOTWEAR. WASH CLOTHING BEFORE REUSE. GET MEDICAL ATTENTION IF IRRITATION SHOULD DEVELOP.

INGESTION: GIVE CONSCIOUS PERSON SEVERAL GLASSES OF WATER THEN INDUCE VOMITING BY TICKLING BACK OF THROAT WITH FINGER. KEEP AIRWAY CLEAR. GET MEDICAL ATTENTION. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK MEDICAL ATTENTION.

SECTION VII - REACTIVITY DATA

STABILITY: _X_ STABLE ___ UNSTABLE

CONDITIONS TO AVOID: NONE

INCOMPATIBLE MATERIALS: NONE

HAZARDOUS POLYMERIZATION: ___ WILL OCCUR _X_ WILL NOT OCCUR

HAZARDOUS DECOMPOSITION PRODUCTS: NONE

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Naperville, Illinois 60563 USA
(630) 305-0538

MATERIAL SAFETY DATA SHEET
AN545L ANODIZING SEAL

SECTION VIII - SPILL OR LEAK PROCEDURES

SPILL OR LEAKAGE: MAINTAIN ADEQUATE VENTILATION. USE PROPER SAFETY EQUIPMENT. CONTAIN SPILL, PLACE INTO DRUMS FOR PROPER DISPOSAL OR REUSE. FLUSH REMAINING AREA WITH WATER TO REMOVE TRACE RESIDUE AND DISPOSE OF PROPERLY. AVOID DIRECT DISCHARGE TO SEWERS AND SURFACE WATERS.

WASTE DISPOSAL METHOD: OBSERVE ALL LOCAL, STATE, AND FEDERAL REGULATIONS. DISPOSE OF AT APPROVED LANDFILL SITE OR WASTE TREATMENT FACILITY. IF AUTHORIZED, NEUTRALIZE MATERIAL AND FLUSH TO APPROVED WASTE TREATMENT SYSTEM. DO NOT PRESSURIZE, CUT, WELD, BRAZE SOLDER, DRILL, GRIND OR EXPOSE EMPTY CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION.

SECTION IX - PERSONAL PROTECTION

VENTILATION REQUIREMENTS: LOCAL EXHAUST VENTILATION

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION: CHEMICAL SPLASH GOGGLES OR FACE SHIELD

SKIN PROTECTION: RUBBER OR PLASTIC GLOVES

RESPIRATORY PROTECTION: NIOSH/OSHA APPROVED RESPIRATOR IF NECESSARY. FOLLOW MANUFACTURER'S RECOMMENDATIONS

OTHER REQUIRED EQUIPMENT: EYEWASH STATION. SAFETY SHOWER. RUBBER APRON. CHEMICAL SAFETY SHOES. PROTECTIVE CLOTHING

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MATERIAL SAFETY DATA SHEET
AN545L ANODIZING SEAL

SECTION X - SPECIAL PRECAUTIONS

PRECAUTIONARY STATEMENTS:

WARNING!
CAUSES IRRITATION.
AVOID CONTACT WITH EYES, SKIN, AND CLOTHING.
WEAR CHEMICAL SPLASH GOGGLES, GLOVES AND PROTECTIVE CLOTHING WHEN HANDLING.
USE WITH ADEQUATE VENTILATION.
WASH THOROUGHLY AFTER HANDLING.
FOR INDUSTRIAL USE ONLY.

OTHER HANDLING AND STORAGE REQUIREMENTS:
STORE IN COOL DRY PLACE.
STORE IN CLOSED CONTAINERS. DO NOT STORE IN UNLABELED OR MISLABELED CONTAINERS.

CHEMICAL EMERGENCY TELEPHONE (INFOTRAC): 1-800-535-5053

ALL INFORMATION, RECOMMENDATIONS, AND SUGGESTIONS APPEARING HEREIN CONCERNING OUR PRODUCT ARE BASED UPON TESTS AND DATA BELIEVED TO BE RELIABLE. HOWEVER, IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE SAFETY, TOXICITY, AND SUITABILITY FOR HIS OWN USE OF THE PRODUCT DESCRIBED HEREIN. SINCE THE ACTUAL USE BY OTHERS IS BEYOND OUR CONTROL, NO GUARANTEE, OR WARRANTY EXPRESSED OR IMPLIED, IS MADE BY STONE CHEMICAL COMPANY AS TO THE EFFECTS OF SUCH USE, THE RESULTS TO BE OBTAINED, OR THE SAFETY AND TOXICITY OF THE PRODUCT, NOR DOES STONE CHEMICAL COMPANY ASSUME ANY LIABILITY ARISING OUT OF USE, BY OTHERS, OF THE PRODUCT REFERRED TO HEREIN. THE INFORMATION MAY BE NECESSARY OR DESIRABLE WHEN PARTICULAR OR EXCEPTIONAL CONDITIONS OR CIRCUMSTANCES EXIST OR BECAUSE OF APPLICABLE LAWS OR GOVERNMENT REGULATIONS.

ATTACHMENT 12F

Clariant

MATERIAL SAFETY DATA SHEET

Aluminum Gold S Pdr

Substance key: COV137581
Version : 1 - 4 / USA

Revision Date: 06/01/2005
Date of printing :05/22/2007

Section 01 - Product Information

Identification of the company:

Clariant Corporation
4000 Monroe Road
Charlotte, NC, 28205
Telephone No.: +1 704 331 7000

Information of the substance/preparation:
Pigments and Additives
Product Safety 1-401-823-2366

Emergency tel. number: +1 800-424-9300 CHEMTREC

Trade name: **Aluminum Gold S Pdr**
Material number: 138990

Chemical family: azo dyestuff/chromium complex
Primary product use: Data Not Yet Available

Chemical family: Trivalent Chromium Complex Of An Azo Dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 3 %
Chromium (III) Compound		< 30 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (7440-47-3)
Chromium: Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. There have been no reports of any of these effects from the use of this product.

Known effects on other illnesses: Pre-existing skin conditions may be aggravated by

exposure to this product.

Listed carcinogen:
IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 2* Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Get victim to fresh air. Give artificial respiration or oxygen if breathing has stopped. Get prompt medical attention. Do not give fluids if victim is unconscious.

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Flush immediately under running water for fifteen minutes. If redness or irritation occurs, seek medical attention.

After ingestion:
If ingested, do not induce vomiting. Do not give anything to drink. Contact physician immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: No data.

Lower explosion limit: not determined

Upper explosion limit: not determined

Hazardous combustion products:
Thermal decomposition may produce oxides of carbon, nitrogen, and sulfur. Ash will contain chromium.

Extinguishing media: Carbon dioxide, water, alcohol resistant foam, dry chemical.

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: Emits toxic fumes under fire conditions. This product presents no unusual fire or explosion hazards while sealed in a shipping container. During usage, if a dust cloud is generated, organic powders have the potential to be explosive with static spark or flame initiation.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:

Avoid dust formation. Keep away from sources of ignition. Lead off electrostatic charges.
Avoid breathing dust and contact with skin, eyes,and clothing.
Wash thoroughly after handling.

Further info on storage conditions:

Store in a cool, dry, well-ventilated area. Keep container sealed when not in use.

Section 08 - Exposure controls / personal protection

CHROMIUM, METAL, AND INSOLUBLE SALTS	7440-47-3	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR	7440-47-3	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3

Respiratory protection: Use NIOSH/MSHA approved respirators following manufacturer's recommendations where dust or fume may be generated.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses or chemical splash goggles.

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

Section 09 - Physical and chemical properties

Form: Powder

Color: yellow

Odor: Odorless

Solubility in water: soluble

Section 10 - Stability and reactivity

Chemical stability: Stable.

Hazardous Polymerization: Will not occur.
Conditions to avoid: None known.

Conditions to avoid: None known.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	No data.
Acute inhalation toxicity:	No data.
Acute dermal toxicity:	No data.
Skin irritation:	Not tested
Eye irritation:	Not tested

Section 12 - Ecological information

Product information:

Biodegradation:	No data.
Fish toxicity:	No data available.
Daphnia toxicity:	No data available.
Algae toxicity:	No data available.

Section 13 - Disposal considerations

Waste disposal information:

This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24

RCRA hazardous waste:

See Waste Disposal Information in Section 13.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:

All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes

Delayed/chronic: yes

SARA 313 information:

This product contains toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right- To-Know Act of 1986 and 40 CFR 372. Any such toxic chemical(s) are shown below. This information must be included in all MSDS's that are copied and distributed for this material.

Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 3 %
Chromium (III) Compound		< 30 %

Clean Water Act:

Contains priority pollutant chromium at concentrations greater than 0.1%.

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	< 3 %	5,000 LBS
CHROMIUM COMPOUNDS		< 30 %	

FDA:

This product is not registered with the FDA.

Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

MAY CAUSE SKIN, EYE OR RESPIRATORY TRACT IRRITATION INHALATION OF DUST MAY IRRITATE LUNGS AND CAUSE DELAYED LUNG DAMAGE. IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION

Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Avoid breathing dust. Use ventilation and/or respiratory protection in order to keep exposure below TLV values. Maintain good housekeeping for dust control. Keep container closed when not in use.

In case of EYE CONTACT, flush with water for 15 minutes while holding eyelids open. If irritation develops, seek medical attention immediately. In case of SKIN CONTACT, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If IRRITATION develops get immediate medical help. If INHALED, remove individual to fresh air. If BREATHING is difficult, give oxygen and call a physician. INGESTION: do not induce vomiting. Seek medical assistance. Never give anything by mouth to an unconscious person.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

ATTACHMENT 12G

Clariant

MATERIAL SAFETY DATA SHEET

Aluminum Black BK Super Pdr

Substance key: COV104650V2
Version : 1 - 5 / USA

Revision Date: 06/21/2005
Date of printing :04/17/2007

Section 01 - Product Information

Identification of the company:

Clariant Corporation
4000 Monroe Road
Charlotte, NC, 28205
Telephone No.: +1 704 331 7000

Information of the substance/preparation:
Pigments and Additives
Product Safety 1-401-823-2366

Emergency tel. number: +1 800-424-9300 CHEMTREC

Trade name: **Aluminum Black BK Super Pdr**
Material number: 192801

Primary product use: Data Not Yet Available

Chemical family: Trivalent Chromium Complex Of An Azo Dye

Section 02 - Composition information on hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 3 %
Chromium (III) Compound		30 - 34 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation:	yes
Skin contact:	yes
Eye contact:	yes
Ingestion:	no
Skin absorption:	no

Health effects of exposure:

Chromium (7440-47-3)
Chromium: Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. There have been no reports of any of these effects from the use of this product.

Known effects on other illnesses: None known.
Listed carcinogen: IARC: No

NTP: No
OSHA: No
Other: No

HMIS:

Health: 2* Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Get victim to fresh air. Give artificial respiration or oxygen if breathing has stopped. Get prompt medical attention. Do not give fluids if victim is unconscious.

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Flush immediately under running water for fifteen minutes. If redness or irritation occurs, seek medical attention.

After ingestion:
If ingested, do not induce vomiting. Do not give anything to drink. Contact physician immediately

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: Not applicable

Lower explosion limit: not determined

Upper explosion limit: not determined

Hazardous combustion products:
Thermal decomposition may produce oxides of carbon, nitrogen, and sulfur. Ash will contain chromium.

Extinguishing media: Carbon dioxide, water, alcohol resistant foam, dry chemical.

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants and may be considered a RCRA hazardous waste.

Unusual fire and explosion hazards: Emits toxic fumes under fire conditions. This product presents no unusual fire or explosion hazards while sealed in a shipping container. During usage, if a dust cloud is generated, organic powders have the potential to be explosive with static spark or flame initiation.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

Wear proper protective equipment. Product contains heavy metals. Spills should be swept or shoveled up and collected for disposal. Clean-up by removal of contaminated soil or by flushing with a limited quantity of water if appropriate. Place material or contaminated soils in a suitable disposal container.

Section 07 - Handling and storage

Advice on safe handling:

Avoid dust formation. Keep away from sources of ignition. Lead off electrostatic charges.
Avoid breathing dust and contact with skin, eyes,and clothing.
Wash thoroughly after handling.

Further info on storage conditions:

Store in a cool, dry, well-ventilated area. Keep container sealed when not in use.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Value 1	Value 2
CHROMIUM, METAL, AND INSOLUBLE SALTS	7440-47-3	US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR	7440-47-3	US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS /CR/		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3
CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)CHROMIUM, SOL. CHROMIC, CHROMOUS SALTS (AS CR)		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL AND CR III COMPOUNDS, AS CR		US ACGIH Threshold Limit Values Data	Time Weighted Average (TWA):		0.5 mg/m3
CHROMIUM, METAL, AND INSOLUBLE SALTS		US OSHA Table Z-1-A Data	Time Weighted Average (TWA):		1 mg/m3

Respiratory protection: Use NIOSH/MSHA approved respirators following manufacturer's recommendations where dust or fume may be generated.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses or chemical splash goggles.

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

Section 09 - Physical and chemical properties

Form:	Powder
Color:	black
Odor:	Mild odor.
Solubility in water:	soluble

Section 10 - Stability and reactivity

Chemical stability:	Stable.
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	None known.

Section 11 - Toxicological information

Product information:

Acute oral toxicity:	No data.
Acute inhalation toxicity:	No data.
Acute dermal toxicity:	No data.
Skin irritation:	not determined
Eye irritation:	not determined

Section 12 - Ecological information

Product information:

Biodegradation:	No data.
Fish toxicity:	No data available.
Daphnia toxicity:	No data available.
Algae toxicity:	No data available.

Section 13 - Disposal considerations

Waste disposal information:

This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24.

RCRA hazardous waste:
No -- Not as sold.

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:
All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	< 3 %
Chromium (III) Compound		30 - 34 %

Clean Water Act:
Contains priority pollutant chromium at concentrations greater than 0.1%.

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
CHROMIUM	7440-47-3	< 3 %	5,000 LBS
CHROMIUM COMPOUNDS		30 - 34 %	

FDA:
This product is not registered with the FDA

Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

AIRBORNE DUST MAY BE IRRITATING TO EYES, NOSE, THROAT AND SKIN. INHALATION OF DUST MAY IRRITATE LUNGS AND CAUSE DELAYED LUNG DAMAGE. IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION.

Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Avoid breathing dust. Use ventilation and/or respiratory protection in order to keep exposure below TLV values. Maintain good housekeeping for dust control. Keep container closed when not in use.

In case of EYE CONTACT, flush with water for 15 minutes while holding eyelids open. If irritation develops, seek medical attention immediately. In case of SKIN CONTACT, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If IRRITATION develops get immediate medical help. If INHALED, remove individual to fresh air. If BREATHING is difficult, give oxygen and call a physician. INGESTION: do not induce vomiting. Seek medical assistance. Never give anything by mouth to an unconscious person.

ATTACHMENT 12H

Clariant

MATERIAL SAFETY DATA SHEET

Aluminium Brown BL p

Page 1

Substance key: 000000202449
Version : 2 - / USA

Revision Date: 03/13/2006
Date of printing: 03/14/2006

Section 01 - Product Information

Identification of the company:

Clariant Corporation
500 Washington Street
Coventry, RI, 02816
Telephone No.: +1 (800) 441 4414

Information of the substance/preparation:
Pigments and Additives
Product Safety 1-401-823-2366

Emergency tel. number: +1 800-424-9300 CHEMTREC

Trade name: **Aluminium Brown BL p**
Material number: 207036
Primary product use: Colorant/dye
Chemical family: Azo dye/chromium complex

Section 02 - Composition information on Hazardous ingredients

Hazardous ingredients:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	2.5 - 6.2 %
Chromium (III) Compound		40 - 100 %

Section 03 - Hazards identification

Expected Route of entry:

Inhalation: yes
Skin contact: yes
Eye contact: yes
Ingestion: no
Skin absorption: no

Health effects of exposure:

Chromium (7440-47-3)
Chromium: Chromium and certain compounds of chromium have been reported to cause damage to the lungs that can result in cumulative damage. Evidence for the carcinogenicity to humans is inadequate for chromium metal and trivalent chromium compounds per IARC and NTP. Dermatitis has been reported from repeated, prolonged contact with chromium compounds. Sensitization may occur on repeated contact. There have been no reports of any of these effects from the use of this product.

Known effects on other illnesses: Pre-existing skin conditions may be aggravated by exposure to this product.

Clariant

MATERIAL SAFETY DATA SHEET

Aluminium Brown BL p

Substance key: 000000202449
Version : 2 - / USA

Revision Date: 03/13/2008
Date of printing :03/14/2008

Listed carcinogen:

IARC: No
NTP: No
OSHA: No
Other: No

HMIS:

Health: 2* Flammability: 1 Reactivity: 0 Personal protection: E

Section 04 - First aid measures

After inhalation:
Get victim to fresh air. Give artificial respiration or oxygen if breathing has stopped. Get prompt medical attention. Do not give fluids if victim is unconscious.

After contact with skin:
Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

After contact with eyes:
Flush immediately under running water for fifteen minutes. If redness or irritation occurs, seek medical attention.

After Ingestion:
If ingested, do not induce vomiting. Do not give anything to drink. Contact physician immediately.

Advice to doctor / Treatment:
None known.

Section 05 - Fire fighting measures

Flashpoint: Not applicable

Lower explosion limit: not tested.

Upper explosion limit: not tested.

Ignition temperature: not tested

Hazardous combustion products:
In case of fires, hazardous combustion gases are formed:
Carbon monoxide (CO)
Carbon dioxide (CO2)
Nitrogen oxides (NOx)
Sulphur oxides

Extinguishing media: water spray jet
foam

Special fire fighting procedure:
Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants

Clariant

MATERIAL SAFETY DATA SHEET
Aluminium Brown BL p

Substance key 000000202449
Version 2 / USA

Revision Date 03/13/2006
Date of printing 03/14/2006

Unusual fire and explosion hazards: Emits toxic fumes under fire conditions. This product presents no unusual fire or explosion hazards while sealed in a shipping container. During usage, if a dust cloud is generated, organic powders have the potential to be explosive with static spark or flame initiation.

Section 06 - Accidental release measures

Steps to be taken in case of spill or leak:

Contain spill. Contains heavy metals. Avoid runoff to sewers and bodies of water. Wear proper protective equipment. Absorb on suitable absorbant materials. Clean up by scrubbing with soap and water, collect cleaning wastes, or remove contaminated soils. Place in proper containers.

Section 07 - Handling and storage

Advice on safe handling:

Avoid dust formation. Keep away from sources of ignition. Lead off electrostatic charges.
Avoid breathing dust and contact with skin, eyes, and clothing.
Wash thoroughly after handling.

Further info on storage conditions:

Store in a cool, dry, well-ventilated area. Keep container sealed when not in use.

Section 08 - Exposure controls / personal protection

Occupational exposure limits:

Component	CAS number:	Regulatory list	Type of value	Values / Remarks
Chromium metal and insol. Salts	7440-47-3	US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)	8-hour Time Weighted Averages	1 mg/m3
Chromium, metal and Cr III compounds	7440-47-3	US ACGIH Threshold Limit Values	Threshold Limit Value_Time Weighted Average	0.5 mg/m3

Respiratory protection: Use NIOSH/MSHA approved respirators following manufacturer's recommendations where dust or fume may be generated.

Hand protection: Butyl Rubber, PVC Or Neoprene.

Eye protection: Safety glasses or chemical splash goggles.

Other protective equipment: Clothing suitable to prevent skin contact.

Advice on system design: Local ventilation recommended - mechanical ventilation may be used.

Clariant

MATERIAL SAFETY DATA SHEET

Aluminium Brown BL p

Substance key: 000000202449
Version 2 - / USA

Revision Date: 03/13/2008
Date of printing: 03/14/2008

Section 09 - Physical and chemical properties

Form:	Powder
Color:	brown
Odor:	not specified
Solubility in water:	soluble
Density:	not tested
Melting point :	
Vapor pressure:	Not applicable
Partitioning coef. octanol/water:	Not determined

Section 10 - Stability and reactivity

Chemical stability:	Stable
Hazardous Polymerization:	Will not occur. Conditions to avoid: None known.
Conditions to avoid:	None known

Section 11 - Toxicological information

Product information:	
Acute oral toxicity:	LD50 > 5,000 mg/kg (rat)
Acute inhalation toxicity:	No data
Acute dermal toxicity:	No data
Skin irritation:	Not determined
Eye irritation:	Not determined

Section 12 - Ecological information

Product information:	
Fish toxicity:	LC50 > 1 mg/l (zebra fish) Method: OECD 203
Daphnia toxicity:	No data available
Algae toxicity:	No data available
Bacteria toxicity:	not tested

Section 13 - Disposal considerations

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MATERIAL SAFETY DATA SHEET

Aluminium Brown BL p

Substance key: 000000202449
Version: 2 - / USA

Revision Date: 03/13/2008
Date of printing: 03/14/2008

Waste disposal information:

This product contains chromium predominantly in the trivalent state. Wastes containing chromium may be D007 RCRA hazardous wastes per 40 CFR 261.24

RCRA hazardous waste:

RCRA number: D007

Section 14 - Transport information

DOT	not restricted
IATA	not restricted
IMDG	not restricted

Section 15 - Regulatory information

TSCA Status:

All components of this product are listed on the TSCA Inventory.

SARA (section 311/312):

Reactive hazard:	no
Pressure hazard:	no
Fire hazard:	no
Immediate/acute:	yes
Delayed/chronic:	yes

SARA 313 information:

This product contains the chemical or chemicals listed below which are subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act of 1986 ("SARA") and the requirements of 40 CFR Part 372:

Component	CAS-no. (Trade secret no.)	Concentration
Chromium (as an integral part of the dye or pigment molecule)	7440-47-3	2.5 - 6.2 %
Chromium (III) Compound		40 - 100 %

Clean Water Act:

Contains priority pollutant chromium at concentrations greater than 0.1%

CERCLA information:

Component	CAS-no. (Trade secret no.)	Percentage	RQ
Chromium	7440-47-3	2.5 - 6.2 %	2,270 Kilogram

FDA:

This product is not registered with the FDA.

Clariant

MATERIAL SAFETY DATA SHEET

Aluminium Brown BL p

Substance key: 000000202449
Version : 2 / USA

Revision Date: 03/13/2008
Date of printing: 03/14/2008

Section 16 - Other information

Other precautions:

Handle with care. Organic dusts have the potential to be explosive with static spark or flame initiation.

Label information:

CAUTION!

MAY CAUSE IRRITATION TO EYES AND SKIN. INHALATION OF DUST MAY IRRITATE LUNGS AND CAUSE DELAYED LUNG DAMAGE. IF A DUST CLOUD IS GENERATED DURING USAGE, ORGANIC POWDERS HAVE THE POTENTIAL TO BE EXPLOSIVE WITH STATIC SPARK OR FLAME INITIATION.

Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Use ventilation and/or respiratory protection in order to keep exposure below TLV values. Maintain good housekeeping for dust control. Keep container closed when not in use.

In case of EYE CONTACT, flush with water for 15 minutes while holding eyelids open. If irritation develops, seek medical attention immediately. In case of SKIN CONTACT immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If IRRITATION develops get immediate medical help. If INHALED, remove individual to fresh air. If BREATHING is difficult, give oxygen and call a physician. INGESTION: do not induce vomiting. Seek medical assistance. Never give anything by mouth to an unconscious person.

This information is supplied under the OSHA Hazard Communication Standard, 29 CFR 1910.1200, and is offered in good faith based on data available to us that we believe to be true and accurate. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable to the material. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate for that use. No warranty, express or implied, is made regarding the accuracy of this data, the hazards connected with the use of the material, or the results to be obtained from the use thereof. We assume no responsibility for damage or injury from the use of the product described herein. Data provided here are typical and not intended for use as product specifications. (R) and TM indicate trademarks of Clariant AG, its business partners or suppliers.

ATTACHMENT 12I

ENVIRO-CHEM LABORATORIES, INC.

100 Lakefront Drive, Hunt Valley, Maryland 21030 (410) 785-9739

FINAL REPORT OF ANALYSES

Eastern Plating Company
1200 South Baylis Street
Baltimore, MD 21224-
Attn Mr. Michael Caster

PROJECT NAME:
REPORT DATE: 31-Jan-08

LAB#- ECL015089-008 SAMPLE ID- Chrome Rinse Filte SAMPLE MATRIX- solid
DATE SAMPLED- 1/4/2008 TIME SAMPLED-
SAMPLER- A. Amasia SAMPLE SITE-
DATE RECEIVED- 1/7/2008 TIME RECEIVED- 12:30 RECEIVED BY-CHK

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	DET. LIMIT
TCLP Extraction	EPA 1311	01/07/08	AAA			
Arsenic in TCLP Extract	EPA 6010	01/15/08	CHK	< 0.050	mg/L	0.050
Barium in TCLP Extract	EPA 6010	01/15/08	CHK	< 0.020	mg/L	0.020
Cadmium in TCLP Extract	EPA 6010	01/15/08	CHK	< 0.005	mg/L	0.005
Chromium in TCLP Extrac	EPA 6010	01/15/08	CHK	28.0	mg/L	0.100
Lead in TCLP Extract	EPA 6010	01/15/08	CHK	< 0.050	mg/L	0.050
Mercury in TCLP Extract	EPA 7470	01/08/08	CHK	< 0.001	mg/L	0.001
Selenium in TCLP Extrac	EPA 6010	01/15/08	CHK	< 0.050	mg/L	0.050
Silver in TCLP Extract	EPA 6010	01/17/08	CHK	< 0.010	mg/L	0.010

ATTACHMENT 12J

ENVIRO-CHEM LABORATORIES, INC.

100 Lakefront Drive, Hunt Valley, Maryland 21030 (410) 785-9739

FINAL REPORT OF ANALYSES

Eastern Plating Company
1200 South Baylis Street
Baltimore, MD 21224-
Attn Mr. Michael Caster

PROJECT NAME:
REPORT DATE: 31-Jan-08

LAB#- ECL015089-009 SAMPLE ID- Caustic Filter SAMPLE MATRIX- solid
DATE SAMPLED- 1/4/2008 TIME SAMPLED-
SAMPLER- A. Amasia SAMPLE SITE-
DATE RECEIVED- 1/7/2008 TIME RECEIVED- 12:30 RECEIVED BY-CHK

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	DET. LIMIT
TCLP Extraction	EPA 1311	01/07/08	AAA			
Arsenic in TCLP Extract	EPA 6010	01/15/08	CHK	< 0.050	mg/L	0.050
Barium in TCLP Extract	EPA 6010	01/15/08	CHK	0.051	mg/L	0.020
Cadmium in TCLP Extract	EPA 6010	01/15/08	CHK	< 0.005	mg/L	0.005
Chromium in TCLP Extrac	EPA 6010	01/15/08	CHK	9.378	mg/L	0.100
Lead in TCLP Extract	EPA 6010	01/15/08	CHK	0.062	mg/L	0.050
Mercury in TCLP Extract	EPA 7470	01/08/08	CHK	< 0.001	mg/L	0.001
Selenium in TCLP Extrac	EPA 6010	01/15/08	CHK	< 0.050	mg/L	0.050
Silver in TCLP Extract	EPA 6010	01/17/08	CHK	< 0.010	mg/L	0.010

ATTACHMENT 12K

ENVIRO-CHEM LABORATORIES, INC.

100 Lakefront Drive, Hunt Valley, Maryland 21030 (410) 785-9739

FINAL REPORT OF ANALYSES

Eastern Plating Company
1200 South Baylis Street
Baltimore, MD 21224-
Attn Mr. Michael Caster

PROJECT NAME:
REPORT DATE: 31-Jan-08

LAB#- ECL015089-007 SAMPLE ID- Nickel Filter SAMPLE MATRIX- solid
DATE SAMPLED- 1/4/2008 TIME SAMPLED-
SAMPLER- A. Amasia SAMPLE SITE-
DATE RECEIVED- 1/7/2008 TIME RECEIVED- 12:30 RECEIVED BY-CHK

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	DET. LIMIT
TCLP Extraction	EPA 1311	01/07/08	AAA			
Arsenic in TCLP Extract	EPA 6010	01/15/08	CHK	< 0.050	mg/L	0.050
Barium in TCLP Extract	EPA 6010	01/15/08	CHK	0.033	mg/L	0.020
Cadmium in TCLP Extract	EPA 6010	01/15/08	CHK	< 0.005	mg/L	0.005
Chromium in TCLP Extrac	EPA 6010	01/15/08	CHK	3.770	mg/L	0.010
Lead in TCLP Extract	EPA 6010	01/15/08	CHK	< 0.050	mg/L	0.050
Mercury in TCLP Extract	EPA 7470	01/08/08	CHK	< 0.001	mg/L	0.001
Selenium in TCLP Extrac	EPA 6010	01/15/08	CHK	< 0.050	mg/L	0.050
Silver in TCLP Extract	EPA 6010	01/17/08	CHK	< 0.010	mg/L	0.010